DOCUMENT RESUME

ED 348 356 SP 033 980

AUTHOR	Dupuis, Mary M., Ed.
TITLE	Tradition and Reform in Teacher Education. Monograph 6.
INSTITUTION	Pennsylvania State Univ., University Park. Coll. of Education.
PUB DATE	Jun 92
NOTE	138p.
PUB TYPE	Collected Works - General (020)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	Acquired Immune Deficiency Syndrome; American Indians; *Beginning Teachers; Early Childhood Education; Elementary Secondary Education; Higher Education; Innovation; Majority Attitudes; Minority Groups; Multicultural Education; Program Attitudes; *Program Content; *Program Improvement; Science Programs; *Teacher Education Programs; *Traditionalism
IDENTIFIERS	Reflective Inquiry; *Reform Efforts

ABSTRACT

The papers in this monograph reflect doctoral candidates' efforts to understand and influence teacher education and the changes through which it is going. Following an introduction, papers are presented as follows: (1) "Reflective Inquiry in Teacher Education" (Lynn Zeltzer); (2) "Creating a Reflective Practitioner in the Social Discourse of Schools" (Jose R. Figueroa); (3) "Reform Traditions in Teacher Education Programs" (Ivette Fernandez); (4) "Developing a Personal Statement about a Philosophy of Education" (Elliott Seda); (5) "The Novice Teacher: A Species at Risk" (George M. Bailor); (6) "Teacher Preparation in Multicultural Education" (Ramon A. Serrano); (7) "Professional Inquiry: A Strategy for Enhancing Teaching and Learning" (Clarice Baker Big Back); (8) "Field Tests of a New Science Curriculum: The National Geographic Kids Network Experiences of a Teacher and His Students" (Dick O'Grady); (9) "HIV/AIDS Prevention in Teacher Education" (Lydia Blasini); and (10) "The Significance of 'To Open Minds' by Howard Gardner for Developmentally Appropriate Practice in Early Childhood Education" (Celeste A. Lasater). (LL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED348356

MONOGRAPH 6

TRADITION AND REFORM IN TEACHER EDUCATION

Mary M. Dupuis, Editor

Contributors

George M. Bailor
Clarice Baker Big Back
Lydia Biasini
Ivette Fernandez
Jose R. Figueroa
Celeste A. Lasater
Dick O'Grady
Elliott Seda
Ramon A. Serrano
Lynn Zeltzer

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

M Dupuis

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PENNSTATE

BEST COPY AVAILABLE

SP033580

MONOGRAPH 6

TRADITION AND REFORM IN TEACHER EDUCATION

Mary M. Dupuis, Editor

Contributors

George M. Bailor
Clarice Baker Big Back
Lydia Blasini
Ivette Fernandez
Jose R. Figueroa
Celeste A. Lasater
Dick O'Grady
Elliott Seda
Ramon A. Serrano
Lynn Zeltzer

Division of Curriculum & Instruction
College of Education
The Pennsylvania State University
University Park, PA 16802

June 1992

TABLE OF CONTENTS

	Page
Introduction Mary M. Dupuis	1
Reflective Inquiry in Teacher Education Lynn Zeltzer	3
Creating a Reflective Practitioner in the Social Discourse of Schools Jose R. Figueroa	19
Reform Traditions in Teacher Education Programs Ivette Fernandez	35
Developing a Personal Statement About A Philosophy of Education Elliott Seda	43
The Novice Teacher: A Species At Risk George M. Bailor	59
Teacher Preparation in Multicultural Education Ramon A. Serrano	73
Professional Inquiry: A Strategy for Enhancing Teaching and Learning Clarice Baker Big Back	83
The Field Tests of a New Science Curriculum: The National Geographic Kids Network Experiences of a Teacher and His Students Dick O'Grady	93
HIV/AIDS Prevention in Teacher Education Lydia Blasini	103
The Significance of To Open Minds by Howard Gardner for Developmentally Appropriate Practice in Early Childhood Education Celeste A. Lasater	117

TRADITION AND REFORM IN TEACHER EDUCATION

Mary M. Dupuis, Editor

The papers in this monograph, the sixth in the series, are the result of study and discussion over a two year period by students in the doctoral program in Curriculum and Instruction at Penn State University. These students find themselves engaged in teacher education through their involvement in the undergraduate program as teachers, resource people, and supervisors. They are also concerned about teacher education as a field of study.

The authors come to us from widely varying backgrounds. Several have taught in the public schools for 15 years or more. Some have considered administrative work. Five of them have worked in their own hispanic communities, both on the mainland and in Puerto Rico, as teachers and community activists. One has been teaching in Native American schools. All of them have arrived at Penn State committed to becoming leaders in education, whether in higher education or in public schools and governmental agencies. These papers reflect their effort to understand and influence teacher education and the changes through which it is going.

The first three papers focus on the reform processes now underway in teacher education. In each case, they are interested in the process of reflection as it impacts on teacher education programs. Zeltzer focuses on reflective inquiry and the process of empowering the emerging teaching force. Figueroa discusses ways to socialize teachers into reflective practice. Fernandez discusses the reform traditions which have shaped teacher education and the differences in process among them. These three papers develop the focus on tradition and reform which organizes this monograph.

Seda and Bailor take us into the preparation of novice teachers. Seda is concerned about how novices develop and use a personal philosophy of education. Given the current emphasis on reflection, he questions how we can help prospective teachers think through their own belief system. Bailor takes this one step further in discussing some of the characteristics of students who choose to enter teacher education

programs and the ways we assess and select them. He is particularly concerned about the use of standardized tests as selection criteria.

Serrano and Big Back discuss issues of multiculturalism in teacher education. Serrano is concerned that predominantly majority teachers, that is, white middle class, are not well prepared to teach the classrooms of the 21st century, with their larger numbers of minority students. Sensitizing prospective teachers to different cultures and providing them with appropriate teaching processes for those cultures are among his recommendations. Big Back looks at professional inquiry from the perspective of a Native American. She asks how teachers can be prepared, either preservice or inservice, to understand both the cultural differences of learners and the academic requirements of schooling. Her paper focuses on curricular issues from a critical perspective.

The final three papers focus on subject- and level-specific issues. O'Grady describes an innovative elementary science program, the National Geographic Kids Network, which is an excellent example of the principles described in earlier papers: hands on, research and theory based, interactive, technological. Blasini argues for the inclusion of knowledge and skills related to HIV and AIDS within the teacher education program. She comes from experience with such curricula in Puerto Rico and ties the issue to the reflective process included in earlier papers. Lasater provides a fitting finale for the monograph with her reflective review of Gardner's book To Open Minds. Lasater is really providing a rationale for the concept of developmentally appropriate practice in early childhood education. Her use of several cultures and their value systems helps actualize the discussion of multicultural issues given earlier.

The goal of this monograph is to provoke discussion on topics important to the continuing development of teacher education programs. The authors and I invite comment and further research in these and other areas as we work collectively to reform teacher education.

Reflective Inquiry in Teacher Education

Lynn Zeltzer

The currently popular concept of "reflective inquiry" in teacher education programs throughout the country is actually based on ancient practices; reflective inquirers such as Plato, Socrates, Confucius, Lao Tzu, Solomon, Buddha and Jesus all taught human beings to question hierarchal structures and authoritarian dogmas imposed from without; to value the inner working of mind and spirit; to learn how to go beyond societal standards and conformist views into a realm of new mental attitudes, renewed visions of human reality, and an inner-directed way of living in the world. In the secular world, people like Bacon, Descartes, Newton, Kant, and Locke made full use of reflective inquiry in the areas of philosophy, religion, physics, mathematics, and education. As one recent educational writer has pointed out, true reflectivity:

> Can have an Eastern reflective edge as well as the Western scientific approach.... It has been used in teaching, but also to grasp at the essential elements of humankind.... It is not a method or technique, but a way of life. (Waxman, Freiberg, Vaughan, & Weil, 1988, p. 8)

At the heart of all true reflective practice is the genuine willingness to let go of cherished concepts, ways of doing things, techniques for structuring ideas and content matter, and mental preconceptions or constructs that may no longer serve present realities. There is also much need for willingness on the part of teacher educators and cooperating teachers in public schools who work with preservice teachers to voluntarily give up institutional misuses of power and control that can disempower and psychologically injure students who might otherwise become outstanding teachers. And, perhaps for these very reasons, reflective inquiry can be deeply threatening to many educators. As Donald Schon, a leading writer on reflective inquiry, has truthfully pointed out:

> Reflective teaching works uphill against the epistemology built into the bureaucracy of the school, with its lesson plans oriented to the 'coverage' of standardized units of privileged school knowledge, its standard divisions of time and space, its routines for testing...all geared to a view of knowledge, learning and teaching built around 'right answers' that

> teachers should be 'covering' and students should be learning to reproduce...a faculty member of a school of education can practice reflective coaching only by working uphill against the institutional system and culture of that school. For there, given the epistemology and status system built into the modern research university, practice is likely to be considered a second-class activity.... (Schon, 1988, pp. 26-27)

If reflective inquiry is a way of life rather than a technique or a method, it is also what Schon and others have called a "reframing" of reality:

> The motion of reframing lies at the heart of reflection; reframing alters the way in which data from reality are seen.... When one reflects, one does not accept these structures as static and given; on the contrary, one is constantly striving to expand, refine and alter them.... One has a reflective attitude if one displays a tendency to develop or alter mental structures. (Wubbels & Korthagen, 1990, p. 32)

This reframing of reality through altered and new perceptual attitudes and experiential openness often results in the resolution of conflicts or situations in classrooms through restructuring, altering, or even completely transforming educational realities rather than through recourse to the technical/rational tradition in education. And it is this deep-rooted desire to question, to alter, to transform, and make new that causes true reflective inquiry as a serious practice to be so threatening to educators in positions of power and authority both in the school and in the university system. Certainly it cannot be disputed that in almost every case "institutions resist changes in their traditional forms" (Harris, 1989, p. 18).

Although the research and writing on reflectivity in education reveals ambiguity and vagueness concerning not only the definition and description of reflective inquiry but also its effects on teachers and students, nevertheless certain themes and motifs surface again and again in all discussions of reflection. Reflective inquiry has been described by various writers as a search, a puzzle, an act of self-discovery, a process, a never-ending inquiry, an experimentation, a self-investigation, and a pragmatic, experience-based approach to teaching and learning. Schon and other writers have emphasized right-brain artistic and intuitive processes, and a "knowledge-in-action" and "reflection-on-action" that may defy technical rationality and the existing corpus of professional knowledge that educators have used in the past (Waxman, et al., 1988,

pp. 7-19). "Knowledge-in-action" implies a willingness to create new meanings out of problematic situations that arise in classrooms, a willingness to pose and solve problems through reframing, or "seeing-as," as Schon has put it rather than through prescribed or traditional ways of responding to immediate classroom situations. However, reflective inquiry in teaching does not rely solely on intuitive, on-the-spot improvisatory skills; "reflection-on-action" requires intentional and deliberate planning for the future based on post-hoc thinking and quite conscious awareness of past experiences. There is much room for discernment and deliberate decision-making on the part of the teacher; but such decision-making is based more on the experience and personal thinking of the individual teacher in conjunction with his or her students than it is based on the experience and research of others. In true reflective inquiry, the results of a process may turn out to be completely unanticipated (Waxman, et al., 1988; Schon, 1987).

The curriculum of a teacher preparation program which is based on reflective inquiry should be open-ended rather than rigidly prescribed, problematic rather than received, and responsive, above all else, to the individual strengths and self-perceived needs of the preservice teachers themselves. It must be a curriculum for uncertainty, subject to change and continuous development, a curriculum in which no two students may have exactly the same set of requirements or engage in exactly the same study or research. In this respect alone, as well as in other areas, the difference between a traditional program and an inquiry-oriented program is very great. As Kenneth Zeichner has stated, traditional teacher education generally has a fixed curriculum, and "the prospective teacher is viewed primarily as a passive recipient of this professional knowledge and plays little part in determining the substance and direction of his or her preparation program" (Zeichner, 1983, p. 3). In an inquiry-oriented program, on the other hand, the preservice teacher is viewed:

> As an active agent in his or her own preparation for teaching...advocates of this position express a concern for helping prospective teachers assume a greater role in shaping the direction of educational environments

> according to purposes of which they are aware and which can be justified in moral and ethical as well as instrumental terms. Underlying this approach is a metaphor of liberation. (Zeichner, 1983, p. 6)

This metaphor of liberation is indeed central to the whole reflective inquiry process for both preservice and inservice teachers; it implies freedom from inner limitations and anxieties that can impede professional growth, but also freedom from institutional arrangements and power structures that may hinder rather than help students and teachers in the search for full realization of talent and potential. In terms of existing preservice teacher education programs, Zeichner and other researchers believe that "the 'inquiry-oriented' paradigm appears to be the only approach that seeks to foster a problematic attitude on the part of prospective teachers toward existing institutional arrangements" (Zeichner, 1983, p. 7).

In the now-famous 19 postulates of John Goodlad which developed out of a massive five-year Study of the Education of Educators, Goodlad states that teacher education programs must help students to "transcend their self-oriented student preoccupations to become more other-oriented in identifying with a culture of teaching" (Goodlad, 1990, p. 191); he also emphasizes that such programs "must involve future teachers not only in understanding schools as they are but in alternatives, the assumptions underlying alternatives, and how to effect needed changes in school organization, pupil grouping, curriculum, and more" (Goodlad, 1990, p. 192). It is precisely this other-oriented way of viewing and evaluating existing school cultures and their alternatives--and the necessary bridge that must be built between them--that is the real focus of a teacher education program that is infused with reflective inquiry in every aspect of it. As Zeichner has stated, inquiry-oriented approaches:

> Vary according to the degree to which they explicitly link the goal of developing reflective teachers with the need for changes in the structure and organization of schools and the occupation of teaching...various kinds of changes in schools...must accompany changes in the preparation of teachers. (Zeichner, 1987, p. 567)

In many existing programs, curricular aspects designed to facilitate reflective inquiry occur only within isolated courses or within course components. Many researchers feel

that a much better approach would be one that reframes or reformulates an entire professional curriculum around the central focus of reflective inquiry so that students can genuinely internalize new ways of other-oriented thinking, perceiving, and relating in a university-school community or culture of teachers, educators, and students (Waxman, et al., 1988, pp. 20-21).

If we can reasonably expect future teachers and inservice teachers to work with our children in a manner that is sensitive and consistently thoughtful concerning the nuances of human growth and development, then we must consistently hold a firm commitment to reflective training for all preservice teachers during their training years. We must be willing to openly recognize the ways in which institutional contexts inhibit the very reflective attitudes that programs may overtly be attempting to promote. And we must be willing to face the worst as well as the best aspects of ourselves. As one educator has put it, "Unearthing the motives that drive us, sometimes to the detriment of our pupils and even our own most cherished ideals, is not easy. It demands a courageous and careful examination.... It requires braving the worst aspects of ourselves" (Wright, 1977, pp. 226, 230). Often our motives may center on questions of power and authority: "We often find ourselves in the predicament of wanting power over others, while resenting those who have power over us. It is difficult to give up power, which is what teachers must do" (Hunter, 1977, p. 291). If preservice teachers in an inquiry-oriented program need to internalize new ways of thinking, perceiving and relating to others, then so must all of us who are part of their educational process. As one social psychologist has wisely commented, "the good leaders, the ones who rate high in terms of actual results, gave power away more than the others. What could you say about the fact that the more power you give away the more you have?" (Maslow, 1971, p. 200).

One way to empower preservice teachers to go beyond traditional institutional contexts that may inhibit reflectivity, a way that has proved to be unusually effective, is action research. Zeichner has defined this activity as "a form of self-reflective

inquiry undertaken by participants in a social setting in order to improve their own practice, their understanding of these practices and the situations in which the practices are carried out" (Zeichner, 1987, p. 568). Action research is not always conducted within public school settings; but it does always center on individual and collaborative research, observation and reflection leading to improved problem solving. It is often combined with the use of ethnographic methods which involve students in using school sites as laboratory settings for study, analysis, and further research and discussion. Reflective journals and other open-ended forms of writing become especially important here, not in isolation from real school and community settings, but entirely in conjunction with them. When a variety of activities such as these, and including restructured clinical supervision and field experiences, are utilized in conjunction with each other, it has been demonstrated that preservice teachers become extremely sensitized and reflective observers and participants in educational situations of every description (Zeichner, 1987, pp. 565-571).

Other researchers like Jesse Goodman believe that it is crucial to develop in preservice teachers a reflective perspective rather than a passive or received perspective concerning all curriculum materials, units, plans, textbooks, etc.--everything that has traditionally had power and almost mystical authority over teachers and students alike. Preservice teachers can be encouraged to engage in active curriculum design and redesign, developing their own creative ideas, materials, learning activities, lesson plans, and units. The reflective inquiry process can be utilized to discover every possible means that "might contribute to teachers' conceptions of themselves as curriculum creators--in search of their freedoms in order that they might provoke young persons to go in search of their own (Miller, 1990, p. 86).

Goodman and others convincingly argue for a highly flexible and humanistic approach to teacher education that does develop critical thinking and writing skills, autonomy, independence, and individual responsibility for what will be taught and how it will be conveyed to students. Goodman developed a comprehensive plan for

empowering preservice teachers to design their own curriculum units that centers on reflective inquiry and explores basic questions concerning teaching and learning. In the first segment of the program, students are asked to reflect on basic questions dealing with the educational process which are based on their own past experiences in school classrooms. In the next phase students look ahead to the future of education, speculating on necessary and possible changes that they may make in school curriculum. This phase connects with Goodlad's postulate number 14: "Programs for the education of educators must involve future teachers not only in understanding schools as they are but in alternatives, the assumptions underlying alternatives, and how to effect needed changes" (Goodlad, 1990, p. 192). And as Goodman has put it, "Instead of seeing their main goal as 'fitting into' the pre-existing patterns found in their practicum sites, these individuals become active in creating their own teaching reality" (Goodman, 1986, p. 196). In the third segment of Goodman's course, students compare and contrast current situations in the schools today with their own past experiences and their final reflections on the future of education.

During the middle section of the course, students are introduced to a five-phase approach to curriculum design that begins with choosing an individual topic and developing a whole unit around an issue, concept, or theme, and ends with the students evaluating their own curriculum design and the directions which they have explored. Questions are emphasized rather than predetermined objectives. The whole community is viewed as a resource in addition to conventional textbooks, materials and audiovisual aids; students are encouraged to take advantage of as many community resources as possible. The emphasis here is the interconnectedness of many spheres of life, and the open-endedness of a fluid, multi-faceted curriculum. Preservice teachers next focus on learning activities and what Goodman has called "expressive outcomes," which do not predetermine in any rigid way what individuals are expected to learn from the unit. After this intensive phase comes an exploration of alternative methods of evaluation; and finally, students evaluate their own throughout the unit, discussing common themes.

and threads that run through each of the finished units. Although Goodman has not yet made any systematic study of the effects of this approach on future teachers, he does take a strong stand on the observable increase in autonomy, creativity, and inner-directed research in preservice teachers who have completed his curriculum course; they are clearly more open to viewing themselves as true change agents in the public schools (Goodman, 1986, pp. 179-201).

As Kenneth Zeichner has pointed out, few teacher education programs have been redesigned in such a way that there would exist no contradictions or counterforces undermining a true and central focus on deep-level reflective inquiry. Most programs go no deeper than "altering specific courses or program components within an overall program context which remains unchanged" (Zeichner, 1987, p. 567). Another researcher, in his ethnographic fieldwork in a teacher preparation program over a period of two years, has stated that:

> Preservice teachers were, for the most part, educated in how to follow orders--i.e., to take a prescribed curriculum and deliver it with a variety of techniques...they were not helped to analyze, let alone question the orders, the pregiven curriculum. (Ginsburg, 1986, p. 298).

However, there are some programs which are radical departures from traditional teacher education, programs in which every effort has been made to realign all aspects of the curriculum with the one focus on reflective inquiry; one such program is PROBE, at the University of Colorado, Boulder. The traditional teacher education program at the University of Colorado remains in place, although it has incorporated several changes within its basic structure; along side of it is the PROBE alternative program for older adult students with its total focus on reflective and problem-based teacher education.

The philosophical basis for PROBE are the ideas contained in John Dewey's Experience and Education, written in 1938. Dewey argued that experience is the basis for all true education. However, traditional education is certainly not devoid of experiences:

> Traditional education offers a plethora of examples of experiences.... It is a great mistake to suppose, even tacitly, that the traditional schoolroom

> was not a place in which pupils had experiences. Yet this is tacitly assumed when progressive education as a plan of learning by experience is placed in sharp opposition to the old. The proper line of attack is that the experiences which were had, by pupils and teachers alike, were largely of a wrong kind. How many students, for example, were rendered callous to ideas, and how many lost the impetus to learn because of the way in which learning was experienced by them?...How many found what they did learn so foreign to the situations of life outside the school as to give them no power of control over the latter?...
>
> If I ask these questions, it is not for the sake of wholesale condemnation...it is to emphasize the fact, first, that young people in traditional schools do have experience; and secondly, that the trouble is not the absence of experiences, but their defective and wrong character.... It is not enough to insist upon the necessity of experience, nor even of activity in experience. Everything depends upon the quality of the experience which is had.... Hence the central problem of an education based upon experience is to select the kind of present experiences that live fruitfully and creatively in subsequent experiences. (pp. 26-28).

The co-creators of the PROBE curriculum agreed with Dewey that learning is rooted in high quality experience and that knowledge derives from a process of inquiry. The overall program therefore begins with the reality of a school and a classroom; practice always precedes theory, and PROBE students are in contact with school pupils and teachers prior to, during, and after university study and discussions pertaining to educational theory.

The PROBE staff has also based its curriculum on Kenneth Zeichner's inquiry-oriented paradigm for teacher education already discussed in this paper. Hence the PROBE curriculum is problematic rather than received, and prospective teachers are always actively involved in its continual development. Current institutional/societal patterns are not treated as givens but as situations that are certainly subject to change: "Future teachers should be trained to help in the transformation process of the schools. The staff felt it was difficult to justify the maintenance of the status quo" (Kraft & Haas, 1989, p. 167). Other characteristics of the PROBE experimental program include a strong emphasis on educational problem solving or action research, cooperative small group learning, ethnographic study of school cultures, reflective writing, self-directed, alternative learning situations, participation in community work

or service, and awareness of the interconnectedness of learners, teachers, schools, communities, and the society as a whole. And once again, the focus is always on reflective experience-based education; the preservice teachers are placed in the schools on the very first day of the program, and have continued contact with schools, pupils and various learning environments until the very end of the program. The PROBE program has not yet been studied to determine its full effects on teachers who graduated from it; but the evaluations from former students as well as the fact that it was selected by the U.S. Department of Education for one of its grants as a special demonstration project would indicate the program's real potential in training outstanding teachers who are able to think reflectively and respond creatively in any given educational situation (Kraft & Haas, 1989, pp. 161-178).

Another experimental program which has been recently studied for its possible beneficial effects on teachers who graduated from it is an inquiry-oriented teacher education program in the Netherlands; its main goal is to help preservice teachers:

> To reflect on their experiences as teachers and to strive for a conscious awareness of their own professional development.... The idea behind this is that student teachers can thus be armed against socialization into established patterns of school practice. The student teacher must first gain some idea of who he or she is, of what he or she wants, and above all, of the ways in which one can take responsibility for one's own learning. (Wubbels & Korthagen, 1990, pp. 30-31).

The description of this particular program would indicate that it is especially strong in balancing an emphasis on thinking and writing skills with active problem-solving and collaboration with peers. Students work together in pairs and in small groups, doing research, solving specific problems, and collaborating on a wide range of projects together. The co-authors who researched this program state that "Students are encouraged to reflect not only on the subject content, but also to consider the ways in which they help or cooperate with others, as well as their feelings, attitudes and personal goals" (Wubbels & Korthagen, 1990, pp. 30-31). Student teaching is done collaboratively by groups of two or three preservice teachers who each teach part of the same class; supervisors do not generally visit the school, but give the student teachers

a great deal of freedom and personal responsibility, and the mental space in which to develop their own individualistic style of teaching. Because student teachers work together so closely in the same classes, classroom management problems are generally minimal or nonexistent.

The results of the research which has been done by Wubbels and Korthagen (1990) are genuinely significant, and reveal lasting and beneficial effects on professional teachers who have graduated from this program. Although such teachers do not necessarily consider their teaching techniques to be innovative, they do have higher quality relationships with their students, and are rated much more highly by their students than are teachers from a conservative teacher preparation program which was also studied. In addition, self-perceptions and job satisfaction were much better in the case of the inquiry-trained teachers. They also appeared to be more interested in their professional growth and development through time (pp. 29-43).

It is not possible to effectively work with preservice teachers without deeply reflecting on the kind and quality of education that educators want to promote among pupils of all ages (Goodman, 1986, p. 181). A study of inner city school classrooms done by Richard deCharms reveals that students of any age can be made to think (consciously and also subliminally) that they are being controlled by outside authority figures and institutions or that are being impelled in thought and in action by inner-directedness and free choice. Motivation for learning is greatly enhanced in classrooms that deCharms has called "origin classrooms":

> A pawn is a person who feels that someone other than himself is in control of what he does. He feels that what he does is imposed on him.... The results of his actions are not really his and he need take little responsibility for them.... An origin, on the other hand, is a person who feels that he directs his own life, that what he does is the result of free choice.... He owns his actions and their consequences and takes responsibility for them. (deCharms, 1977, p. 297).

Inner city classrooms observed by deCharms and his colleagues that were being taught by teachers who strongly encouraged and reinforced origin rather than pawn thinking were environments where pupils enjoyed learning and cooperating with each other.

Intolerable discipline cases from other classrooms disappeared here; pupils who had fought and had been in conflict with each other on city streets suddenly learned to get along and work together. Self-discipline was stressed and freedom to think, to make responsible choices, to direct one's own learning were encouraged and reinforced. Individual differences in learning and thinking were not sacrificed for the sake of group cohesion in such classrooms. In such an atmosphere "the children can learn to take more and more responsibility and will enforce their own rules" (deCharms, 1976, p. 167).

If educators do not strongly encourage preservice teachers to develop their own thinking and teaching styles, to feel free enough to be creative and innovative, then how can future teachers possibly help their pupils to become inner-directed and intrinsically motivated learners? It is impossible to separate preservice teacher education from the goals of public school education; and it is impossible to separate the teacher from the student, or the university curriculum from the elementary and secondary school curriculum. In every case, the goal must be full self-actualization and freedom of thought for every human being.

> We wish to argue that teacher education institutions are damagingly bereft of both social conscience and social consciousness. As a result, programs need to be developed in which prospective teachers can be educated as critical intellectuals who are able to affirm and practice the discourse of freedom and democracy...we want to explore how a radicalized teaching force can provide for empowering teachers and teaching for empowerment. (Giroux & McLaren, 1987, pp. 267-268).

References

deCharms, R. (1976). Enhancing motivation. New York: Irvington Publishers Inc.

deCharms, R. (1977). Students need not be pawns. Theory into Practice, 16(4), 296-301.

Dewey, J. (1938). Experience and education. New York: Macmillan Publishing Company.

Ginsburg, M. (1984). Reproduction, contradictions and conceptions of curriculum in preservice teacher education. Curriculum Inquiry, 16(3), 283-309.

Giroux, H., & McLaren, P. (1987). Teacher education as a counterpublic sphere: Notes towards a redefinition. In T. Popkewitz (Ed.), Critical studies in teacher education: Its folklore, theory and practice. New York: The Falmer Press.

Goodlad, J. (1990). Better teachers for our nation's schools. Phi Delta Kappan, 72(3), 185-194.

Goodman, J. (1986). Teaching preservice teachers a critical approach to curriculum design: A descriptive account. Curriculum Inquiry, 16(2), 179-201.

Harris, I. (1989). A critique of Schon's views on teacher education: Contributions and issues. Journal of Curriculum and Supervision, 5(1), 13-18.

Hunter, E. (1977). Changing the dynamics of the classroom. Theory into Practice, 16(4), 290-295.

Kraft, R., & Haas, J. (1989). PROBE: Problem-based teacher education at the University of Colorado, Boulder. In J. DeVitas and P. Sola (Eds.), Building bridges for educational reform: New approaches to teacher education. Ames, IO: Iowa State University Press.

Maslow, A. (1971). The farthest reaches of human nature. New York: Viking Press.

Miller, J. (1990). Teachers as curriculum creators. In J. Sears and J. Marshall (Eds.), Teaching and thinking about curriculum. New York: Teachers College Press.

Schon, D. (1983). The reflective practitioner: How professionals think in action. New York: Basic Books.

Schon, D. (1988). Coaching reflective teaching. In P. Grimmett and G. Erickson (Eds.), Reflection in teacher education. New York: Teachers College Press.

Waxman, H., Freiberg, H. J., Vaughan, J. C., & Weil, M. (Eds.). (1988). Images of reflection in teacher education. Reston, VA: Association of Teacher Educators.

Wright, B. (1977). Our reason for teaching. Theory into Practice, 16(4), 225-230.

Wubbels, T., & Korthagen, F. A. J. (1990). The effects of a pre-service teacher education program for the preparation of reflective teachers. Journal of Education for Teaching, 16(1), 29-43.

Zeichner, K. (1983). Alternative paradigms of teacher education. Journal of Teacher Education, 34(3), 3-9.

Zeichner, K. (1987). Preparing effective teachers: An overview of instructional strategies which have been employed in preservice teacher education. International Journal of Educational Research, 11, 565-575.

Creating a Reflective Practitioner in the Social Discourse of Schools

Jose R. Figueroa

The purpose of this paper is threefold. First, it will attempt to provide an insight as to the immediate aspiration and concerns of teacher education institutions; second, it is intended to describe the process through which pre-service teachers attempt to become established and socialized into the complex world of teaching; and finally, it will present a profile of the use of clinical supervisory techniques along with the resolution of some of the current problems of teacher education.

Schools and the Role of Teacher Education Institutions

In past years, teacher education has become a major concern for higher education institutions that attempt to encourage and perpetuate the influx of new teachers into an already controversial arena, schools. In the minds of many, schools are seen as a place where people's hope for a good tomorrow is to crystalize. It is a place where our current social conditions are to be explored and resolved through the development of job training and selection. Nevertheless, after World War II schools have become the focal point for responding to such issues as social equality, moral development, and political legitimacy. For many, schools are where individuals are enlightened into the realm of citizenship and the development of a meritocratic society (Popkewitz, 1985, p. 100).

The complex nature of schools enables not only educators but all who in one way or another participate in the educational process to view schools as being one of the major social forces responsible for encouraging and fostering in students the need to fulfill their life-long goals and aspirations. As a result of such a view, teacher educators have become aware of their responsibility to generate highly qualified individuals capable of providing top quality educational experiences to future generations of students. This is precisely where teacher education programs come into play.

According to Liston and Zeichner (1987), the education of teachers in the United States is an enormously massive enterprise composed of approximately 1,400 colleges and universities. These numbers represent close to 80% of all tertiary institutions in the country. On one level, our existing public school system absorbs nearly 200,000 new teachers every year. A phenomenon that is partly due to the increasing and changing demographics. At a second level, there is a current teaching force composed of nearly two million professionals that will have to be replaced within the next decade; mainly because of retirement but also due to the large turnover that persists within our school systems. These demographics, together with the unquestionably important role of the classroom teachers in school reforms, underline the importance of teacher education programs.

The need to address the importance of the teacher's role in education brings about the aspect of promoting more emancipatory educational experiences and practices (Liston & Zeichner, 1987). Such educational practices should constitute an important part of a more comprehensive reform strategy that must include changes in the way teacher preparation and/or education is being carried out.

Clearly, teacher educators can and should begin to provide educational programs that are critical and, in the best sense, emancipatory. Teaching institutions should provide the necessary environments where beginning teachers can prepare to become empowered by searching and engaging in their own meaningful and productive education processes. Teacher education programs should foster the creation and generation of cooperative learning environments where teachers would be encouraged to share and explore their own practices and philosophies, as well as that of others. In addition, the implementation of cooperative and collaborative modes of teaching and learning, novice and veteran teachers alike should employ a variety of instructional observation tools that would allow for the analysis of their teaching acts and enable them to reflect on not only how they teach but why they teach.

By allowing students to explore the significance of their actions, teacher educators would not only be encouraging mere professional reflection but also the synthesis of empowered individuals capable of becoming social, cultural, and even political agents of change and emancipation. Teacher educators should foster appropriate environments where reflective practitioners may have the opportunity to share and explore critically the complexity of their teaching experiences and perceptions. Considering this, teacher educators must educate and inoculate future teachers in what we understand to be a socially constructed practice of teaching, but attempt to enlighten those who will be held responsible for the education of the students of tomorrow.

If quality education is to be the goal, then it is imperative for all educators to acknowledge the intrinsic nature of teaching. It should be understood that teaching is a complex social practice that can either promote growth and a critical awareness of the world around us, or merely generate and reproduce an unwanted social environment that shelters itself in those forces that promote inequality and injustice. From a school's perspective and from that of its community, the attainment of a quality education may represent either an empowering and enlightening experience or a way of thinking that may be conducive to a lack of self-worthiness and lose of personal empowerment.

Students should be given the opportunity to understand the need to exist interdependently among one another. An understanding that allows students to visualize their efforts and achievements in the light of those collective and interrelated efforts of all whose existence they share. Such an understanding of one's surrounding and social practices can be envisioned and understood only if future teachers and teacher educators conceive our current teaching and social practices as being not only as socially established but rather as a complex human activity that is construed collectively and not individually (MacIntyre, 1984). A social practice should therefore

be visualized as the type of activity in which good is realized by achieving standards of excellence that promote equality and justice.

As Liston and Zeichner (1987) suggest, participants of the educational experience need to treat each other fairly and honestly while acting out of conviction and commitment towards social equality and the attainment of excellence in education. The development of students' personal identity, their intellectual and moral autonomy, their sense of community and an understanding of others, are to be the essential goals of any educational experience (Liston & Zeichner, 1987).

As Power (1979) reveals, teachers are concerned with their personal roles, as well as their broad social-political attitudes that influence their specific educational values and expectations. Englander (1960) and Morrison (1962) suggest that greater commitment to the teaching profession is attained when a teacher is able to understand his or her role in the educational process, as well as him/herself as an individual. For this reason, the relevance of a teacher's perceptions of self in the teaching profession should be considered if greater strides are to be attained towards the improvement of our educational practices, both in public schools and institutions of higher education.

Prospective teachers should be allowed to examine both the educational and moral implications of schooling and pedagogy. By examining their personal experiences, beginning as well as experienced teachers may better understand the significance of their individual teaching practices and beliefs. This ideology or methodology would be representative of a move towards the development of reflective and critical inquirers that would view education as a virtue-laden social practice. A practice that promotes the creation of morally and intellectually autonomous learners and educators who are compassionate and caring towards learners and their learning communities, while engaging in the simultaneous creation of their unique identities as life-long learners.

The goal of a reflective and critically oriented teacher education program is to foster and encourage the preparation of thoughtful practitioners capable of examining the varied array of educational goals and alternative courses of action. As a reflective

practitioner, an educator is enabled of becoming a transformative agent of social change, that conceives teaching as a thoughtful, skilled, and a reflective endeavor rather than a mechanistic social practice (Giroux & McLaren, 1986). As Giroux and McLaren (1986) suggest, teachers are the central actors in the process of passionately and clearly conveying the cultural task of educating students and fellow teachers alike. Teachers as educators should struggle to find their own identities, especially when such an action is geared towards the creation of better conditions for educating learners (Liston & Zeichner, 1987).

The Socialization Process of Beginning Teachers

To understand and visualize how teacher educators can strive to develop in prospective teachers the desire to foster critical thought through reflection and to achieve a higher degree of excellence in education, we must attempt to uncover the complexities of the existing social context of schools. The future of teacher education programs depends on their ability to harvest the power of critical inquiry and foster in its participants the desire to encourage reflection and a deeper understanding of how beginning teachers are able to cope with the development of their personal and professional identities.

For years, teaching has been envisioned as an interactive and socially constructed environment, when in reality it is a lonely and isolated practice (Blumberg, 1983). Throughout the history of education, teaching has been characterized as a private place where the practitioner operates and designates his/her surroundings in accordance to their personal understanding of teaching and learning. Consequently, the teaching act is construed as an isolating phenomenon where beginning teachers commence their careers only to find their personal and professional growth inhibited by the institutional norms that permeate the schooling environment (Blumberg, 1983). Nevertheless, the professional roles and attitudes of beginning teachers continue to develop as a result of social interactions and interpretive processes that take place

within the framework of the classroom environment, regardless of the existing isolation factors that operate within our schools.

The adjustment process of teachers is as complex as the school environment. As a result of this, the changes a beginning teacher experiences mimic the complexity of that environment. Blase (1986) indicates that attitudinal, cognitive, and behavioral changes occur in novice teachers as a direct result of entering a new environment. Furthermore, Blase (1986) suggests that these changes are due to the complex teacher-student interactions that occur within the classroom. Gehrke (1981) takes this idea a step further and suggests that students are one of the essential factors in the overall personal and professional development of beginning teachers. According to Gehrke (1981), the reason pupils constitute such an important aspect of the socialization experience is due mainly to the complex interactions that occur among teachers and students. For instance, the first and largest reference group to which all teachers, novice and experienced alike, must relate to is none other than the student body. As a result of this phenomenon, teachers and students construe a meaningful and almost unique relationship that will eventually characterize how teaching and learning will be conducted in the future.

Doyle (1987) and Haller (1967) suggest that the role of pupils in the socialization process of teachers is accentuated simply because of the large degree of isolation that teachers experience from both colleagues and supervisors. Pataniczek and Isaacson (1981) support this notion when they indicate that the very nature of our modern day schools is one in which teachers are compelled to become both physically as well as emotionally isolated from the rest of the teaching community. As Nemser (1983) and Zeichner (1983) indicate, novice teachers are isolated from other more experienced teachers due to the existing school norms and regulations, as well as differences in individual perspectives among colleagues. Consequently, the novice is left in isolation and struggling to create the necessary conditions by which to cope with the simultaneous forces of student-teacher interactions and the acceptance and recognition

from the professional arena. Thus, the socialization process is one of duality, in which completing forces are constantly under a state of flux. In the midst of this social turbulence, the beginning teacher is faced with the unquestionable need to seek comfort and support.

As Ethridge (1989) suggests, the socialization process of novice teachers is accelerated by the need to construe an environment that allows for the creation of a stabilizing and nurturing relationship between the immediate reference groups. As a result of this phenomenon, the teacher elects to utilize the existing teacher-student interrelationships in an attempt to construct a comfortable learning environment. Hence, beginning teachers commence to conceive their personal and professional welfare as a result of the socialization process that occurs between teachers and their students.

Nevertheless, we should have in mind that not all teaching experiences are of equal importance or meaning. For those who teach, each educational exchange is construed in a unique context. As Zeichner and Tabachnick (1983) indicate, beginning teachers travel through unique and yet common experiences during their initial teaching phases. For this reason, each individual will have had a varied set of interactions that will allow him or her to be as different as they are similar to all other teachers. The exploration of one's surroundings is thus an individualistic experience that may be perceived and interpreted in a multitude of ways and contingent with one's views and values.

The multidimensional aspect of teaching is examined by Doyle (1987) when he indicates that beginning teachers are constantly dwelling within an environment composed of simultaneous and unpredictable series of events. According to Doyle and Ponder (1975), the complexity of the classroom context represents a formidable challenge for those beginning professionals who strive to grow and survive at the same time. Hence, it becomes imperative to visualize the school setting as an ecological system composed of a "network of interconnected processes and events" that impinge upon teaching and socializing behaviors of both novice teachers and experienced

educators alike, as well as in the manner in which students perceive and construe the meaning of education.

As we explore the notion of teacher-student interactions and the crucial role in plays in the development of future educators, we must bring into perspective the need for teacher educators to understand how beginning teachers socialize into the complex arena of schools. Furthermore, it becomes critical for educational programs or institutions to foster and encourage in future teachers the desire to develop cooperative and collegial skills required for the attainment of true and successful professional growth and empowerment. To acknowledge the true power of student involvement and the complex sociological interrelationships that exist within any given school environment represents an important step towards providing not only quality education, but effective professional development. The utilization of students as a mean by which teachers can better become incorporated into the school setting is of utmost importance if teachers are to succeed socially and educationally within the complex nature of schools (Friebus, 1977).

By acknowledging the influence of students and the complexity of the school environment, field supervisors for example, would be better able to incorporate into their supervisory roles and methodologies the use of techniques that would encourage pre-service teachers to reflect critically upon the daily occurrences of their classrooms. As they begin to analyze their experiences, beginning teachers become empowered to reflect upon the existing social structures of school environments, as well as the crucial role of students in the development of their professional identities. By creating a new generation of reflective forums or avenues, teacher educators are allowing prospective teachers, as well as novice and experienced alike, the opportunity to explore the unlimited possibilities and rewards of becoming a life-long learner.

Recommendations

It is of utmost importance for teachers to consider the existing conditions of schooling that obstruct teaching and learning. Additionally, the teachers should be

aware of the immense possibilities of creative and reflective teaching and to consider the alternative ways of improving the educational experiences of both teachers and students. According to Liston and Zeichner (1987), teacher education programs should begin to examine the ways in which beginning teachers attempt to become socialized and accepted by both students and faculty members. As Liston and Zeichner (1987) indicate, the sense of isolation and frustration experienced by novice teachers along with the amount of work that the profession entails may contribute to such phenomena as early retirement and teacher burnout. As a teacher begins to experience frustration and confusion, the force of inhibition precipitates the decline of his or her educational desires and professional goals and aspirations. As a result, the individual's personal and professional development is degraded, and ultimately demolished.

The goal of teacher educators and supervisors should be to foster in novice teachers the desire to examine, through the use of clinical models of supervision and/or personal ethnographic journals, the realities of their teaching experiences. Through the use of systematic techniques of observation, collegial dialogue, and personal reflection, teachers would be empowered to explore those schooling conditions that obstruct or serve to liberate their sense of commitment and dedication towards the teaching profession. As teachers become enlightened by their understanding of the environment, they gain the power to achieve their personal and professional goals and aspirations and the aspirations of their students.

Kirk (1986) has argued that teacher education programs need to take as a starting point the act of teaching itself. In addition, teachers and teacher educators should focus on two forms of emancipatory knowledge, a knowledge that feeds directly into the teaching act and aims at the development of competency and a capacity to reflect on one's own self-development, and a knowledge that contextualizes the experiences of the teaching act to help prospective teachers to broaden their conceptions of the teacher's role in schools. As Kirk (1986) indicates, beginning teachers should be allowed the opportunity to examine how they are able to affect directly or indirectly the way

curriculums are to be implemented and/or developed. Furthermore, teachers can gain insight through group discussions of the political, social, and ethical issues that affect the way teaching and learning is carried out in schools.

Understanding why certain educational strategies and/or techniques are being developed and implemented takes precedence over the mechanistic questions of how it is being done. By allowing teachers to explore the significance and the complexities of the teaching act, administrators and teacher educators alike are providing the grounds by which all educators can examine the questions of why the teaching profession is of importance to society as a whole. As a result of these personal and professional examinations, teachers become empowered to accomplish their desired goals and aspirations rather than becoming frustrated and discouraged with the profession.

In an attempt to help teachers better understand the complex relationships that exist within the classroom setting, several teacher educators such as Liston and Zeichner (1987) and Smyth (1986a, 1986b, 1989) have initiated the movement towards the use of critical pedagogy and ethnographic methodologies in education. Teachers have begun to examine their pedagogical experiences with the aid of ethnographic journals and clinical supervisory techniques. As a result of these new techniques, teacher education programs according to Liston and Zeichner (1987) and Smyth (1986a, 1986b, 1989) have been able to restructure and redefine their field-based experiences and aid experienced teachers as well as novices to gain a better understanding of the classroom context.

In the future, teacher education programs must attempt to enhance the teaching experience of prospective teachers by creating new and egalitarian supervisory and instructional methods. By providing new ways to explore the teaching act, teacher educators are fostering the development of reflective styles of teaching that promotes an enhanced interpretation of how the educational context can be improved (Zeichner, 1986). Through the incorporation of both reflective and critically oriented models of clinical supervision, teacher educators such as John Smyth (1986a, 1986b, 1989) and

Noreen Garman (1986, 1990) have provided beginning and experienced teachers with the tools to examine the teaching act from a variety of perspectives. Zeichner (1986) has also attempted to explore the teaching setting by utilizing both reflective and critical pedagogical perspectives. According to Liston and Zeichner (1987), the teaching experiences should be examined from a holistic perspective that considers the intrinsically complex social, political, economic, and personal experiences of teachers and students.

The use of qualitative methods, along with the utilization of clinical models of supervision, has also allowed prospective teachers and researchers to examine among other things, the moral norms of classrooms, the conditions of schooling, and a greater understanding of how prospective teachers can begin to explore their own practices and the settings in which these practices occur. As a result of the use of qualitative inquiry techniques, researchers are now being able to formulate working hypothesis that have arisen from the vast amount of information collected through the process of observation and deliberation. Additionally, the use of clinical models of supervision within the context of early teaching experiences, has allowed for the systematic examination of different educational contexts and methodologies.

Conclusion

If the goal of our nation's teacher education programs is to provide schools with a higher quality of educators, then teacher education programs must strive to achieve a degree of excellence that is representative of our desire to promote quality and equality in education. Encouraging student teachers to visualize and comprehend both the obstacles and alternatives available to them within the school environment is a starting point. As teacher educators, we must provide the means by which our young professionals can work towards the improvement of their educational experiences and that of their students and colleagues. We should provide within our educational institutions, the context in which prospective teachers can reflect on their teaching experiences and analyze their existence critically in order to become transformative

agents of education and change (Giroux, personal communication, 1991). Meanwhile teachers can begin by asking themselves such questions as: What am I doing in this profession? Why did I become a teacher? Have I lived up to the expectations that I had envisioned? In the process of answering these questions, prospective as well as experienced teachers can experience the growth and satisfaction of self determination and empowerment, and hopefully engage in the life long process of not only teaching but learning.

References

Blase, J. J. (1986). Socialization as humanization: One side of becoming a teacher. Sociology of Education, 59(2), 100-113.

Blumberg, A. (1983). Supervision in weakly normed systems: The case study of the schools. (Eric Document Reproduction Service No. Ed 239 381).

Doyle, W. (1987). Learning the classroom environment: An ecological analysis. Journal of Teacher Education, 28(6), 51-55.

Doyle, W. and Ponder, G. (1975). Classroom ecology: Some concerns about a neglected dimension of research on teaching. Contemporary Education, 46, 183-188.

Englander, M. E. (1960). A psychological analysis of vacational choice teaching. Journal of Counseling and Psychology, 7, 257-260.

Etheridge, C. P. (1989). Strategic adjustment: How teachers move from university learnings to school-based practices. Action in Teacher Education, 11(1), 31-37.

Feldman, D. C. (1976). A practical program for employee socialization. Organizational Dynamics, 57(2), 64-80.

Friebus, R. J. (1977). Agents of socialization involved in student teaching. Journal of Educational Research, 70(5), 263-268.

Garman, N. B. (1986). Reflection, the heart of clinical supervision: A modern rationale for professional practice. Journal of Curriculum and Supervision, 2(1), 1-24.

Garman, N. B. (1990). Theories embedded in the events of clinical supervision: A hermeneutic approach. Journal of Curriculum and Supervision, 5(3), 201-213.

Gehrke, N. J. (1981). A grounded theory study of beginning teachers' role personalization through reference group relations. Journal of Teacher Education, 32(6), 34-37.

Giroux, H. & McClaren, P. (1986). Teacher education and the politics of engagement: The case study for democratic schooling. Harvard Educational Review, 56(3), 213-233.

Giroux, H. & McClaren, P. (1987). Teacher education as a counter-public sphere: Notes towards a redefinition. In T. Popkewitz (Ed.), Critical studies in teacher education: Its folklore, theory, and practice, (pp. 266-297). London: Falmer Press.

Haller, E. (1967). Pupils' influences in teacher socialization: A sociolinguistic study. Sociology of Education, 40, 316-333.

Kirk, D. (1986). Beyond the limits of theoretical discourse in teacher education: Towards a critical pedagogy. Teaching and Teacher Education, 2(2), 155-167.

Lanier, J. (1986). Research on teacher education. In M. Wittrock (Ed.), Third handbook of research on teaching, (pp. 527-569). New York: Rand McNally.

Liston, D. P., & Zeichner, K. M. (1987). Critical pedagogy and teacher education, Journal of Education, 169(3), 117-137.

McIntyre, D. J. (1983). Field Experiences in Teacher Education. Washington D. C.: Foundations for Excellence in Teacher Education and Eric Clearinghouse of Teacher Education.

Pataniczek, D., and Isaacson, N. S. (1981). The relationship of socialization and the concerns of beginning secondary teachers. Journal of Teacher Education, 33(3), 14-17.

Pataniczek, D. (1987). Teaching and teacher education reforms: Reconstituting a bureaucratic apparatus and forming a political discourse.

Popkewitz, T. S. (1985). Ideology and social formation in teacher education. Teaching and Teacher Education, 1(2), 91-107.

Power, P. (1981). Aspects of the transition from education student to beginning teacher. Australian Journal of Education, 25(3), 288-299.

Smyth, J. (1986a). Reflection in Action. Deakin University Press.

Smyth, J. (1986b). Clinical supervision: Technocratic mindedness, or emancipatory learning. Journal of Curriculum and Supervision, 1(4), 331-340.

Smyth, J. (1989). A research agenda: An alternative vision and "educative" agenda for supervision as a field of study. Journal of Curriculum and Supervision, 4(2), 162-177.

Zeichner, K. M. (1983). Alternative paradigms of teacher education. Journal of Teacher Education, 34(3), 3-9.

Zeichner, K. (1986). The practicum as an occasion for learning to teach. South Pacific Journal of Teacher Education, 14(2), 11-27.

Zeichner, K. M. & Tabachnick, B. R. (1985). The development of teacher perspectives: Social strategies and institutional control in the socialization of beginning teachers. Journal of Education for Teaching, 11(1), 1-25.

Zeichner, K. M., and Tabachnick, G. R. (1981). Are the effects of university teacher education washed out by school experience? Journal of Teacher Education, 32(3), 7-11.

Reform Traditions in Teacher Education Programs

Ivette Fernandez

It is important for teacher educators to understand the conceptions of knowledge, teaching, learning, and social welfare associated with different reform traditions. According to Zeichner & Liston (1990), a tradition is an argument extended through time in which certain fundamental agreements are defined and redefined. It is the teacher educator who should choose carefully among reform alternatives with a clear sense of their own location. Critical theorists argue that curriculum should take into account the personal knowledge of learners and teachers, their lived experiences, and their recent and past histories in an effort to construct meaningful intellectual endeavors (Adler & Goodman, 1986).

Critical theorist promote the idea of teachers as transformative intellectuals. Teachers as well as other human beings have the potential to reflect upon their own teaching practice and their effects upon learners and consider alternatives for future practice.

This paper will highlight four reform traditions in teacher education and some important differences among ideas and practices.

The Social Reconstructionist Tradition

One of the aims of teacher education programs is to enable future teachers to formulate good reasons for their educational plans, taking into account the social realities of schooling and to encourage a reflective examination of these realities (Liston & Zeichner, 1990). The Social Reconstructionist Reform Tradition defines both schooling and teacher education as a crucial element in a movement toward a more just society. They placed their emphasis on cultivating students' ability to think critically about social order.

According to Sigel (1978), the teacher-educator creates an environment for a continual dialectic that gives the student experiences in engaging in inquiry; therefore,

teacher education becomes a subset of social interactions. Educational experiences will allow participants to create an atmosphere of inquiry and will lead to one's own freedom of action and understanding (Sigel, 1978).

The individual's behavior is considered more than a function of reinforcement. The individual constructs her/his reality through maturation, exercise, and experiences. Through social interaction the individual assimilates experiences from the social world and acts on evolving knowledge, a product of her/his own (Sigel, 1978).

This development of a thoughtful orientation among prospective teachers about education and society is thought to be critical to the ability of teachers to lead the intelligent redirection of the social order. Teacher educators ought to aim at the articulation of prospective teachers' educational values and beliefs. Social beliefs and frameworks enable prospective teachers to become more critically aware of their own assumptions and cognizant of alternative frameworks (Liston & Zeichner, 1990). This tradition would strive to prepare teachers who would be thoughtful and reflective about their work and who would be able to prepare curricula that would engage their students in thoughtful action (Adler & Goodman, 1986). The goal is to educate teachers so they can perform skillfully and reason soundly about their teaching, to make thoughtful decisions and to reflect on their experiences (Edmundson, 1990).

Many reconstructionists focus on the need to develop social consciousness and reform capabilities among prospective teachers (Zeichner & Liston, 1990). This effort to develop an integrated social foundations approach is complemented by attempts to reconstruct the general education of teachers in a conventional subject matter. Constructs of social and physical reality serve to maintain a coherent perspective of the world. This reform tradition emphasizes helping prospective teachers develop an adequate social and educational philosophy for the betterment of our common civilization and enables them not only to formulate good reasons for their educational plans but also to identify those social beliefs and conditions of schooling that are obstacles to a democratic education (Zeichner & Liston, 1990).

The Academic Tradition

A second reform tradition in teacher education is the Academic Tradition. Prior to the existence of formal programs of teacher education, a classical liberal arts education was equivalent to being well prepared to teach (Feiman-Nemser, 1990). This orientation to teacher education emphasizes the teacher's role as a scholar and subject matter specialist and has taken different forms.

The programmatic implications of the academic tradition have changed somewhat over time depending upon particular views of liberal education and kinds of subject matter knowledge that teachers need (Zeichner & Liston, 1990). One of the most important impact of the academic tradition of reform has been on the preparation of secondary teachers that will help bridge the gap between education and the arts and sciences. The academic tradition is primarily concerned with the transmission of knowledge and the development of understanding. It embraces various good teaching techniques ranging from didactic instruction to Socratic inquiry (Feiman-Nesmer, 1990).

Another impact of the academic reform tradition has emerged from work done on teachers' subject matter knowledge (Zeichner & Liston, 1990). Researchers are exploring how teachers' understanding of subject matter content interact with other kinds of knowledge to influence instruction.

Different programs have been developed focusing on helping teachers learn how to teach school subjects in ways that promote conceptual understanding. Teachers need more than content knowledge, they need a special blend of content and pedagogy (Shulman, 1986). Pedagogical content knowledge includes useful ways to conceptualize and represent commonly taught topics in a given subject (Feiman-Nesmer, 1990). Preparing people to teach means helping them develop ideas and dispositions related to the goal, helping students learn worthwhile things they could not pick up on their own.

The Social Efficiency Tradition

A third reform tradition in teacher education, the Social Efficiency Tradition, emerged largely within schools, departments, and colleges of education. The general approach to this tradition in teacher education emphasizes the acquisition of specific and observable teaching skills that are related to students' learning (Zeichner & Liston, 1990).

The social efficiency tradition sought to establish the intellectual legitimacy of teacher education through a grounding in classroom research that linked observable teacher behaviors with student outcomes. One of the subsequent manifestations of this perspective in teacher education is Competency/Performance Based Teacher Education (C/PBTE). This movement required that teacher educators state explicitly the competencies students will acquire in their program and the criteria by which they will be assessed (Feiman-Nemser, 1990). Typically, the C/PBTE consists of instructional modules, sets of learning activities designed to help students achieve specific objectives.

A number of significant developments occurred with the C/PBTE movement. To mention some of them, the development of protocol and simulation materials, systematic classroom observation systems, models of skill training, and microteaching. Microteaching was developed at Stanford University as a method for teaching specific teaching skills to students. Later on, microteaching was incorporated into most teacher training programs.

Feiman-Nemser (1990), described two ways in which this social efficiency reform tradition has been interpreted. First, a technological version in which the intent is to teach prospective teachers the skills that research has shown to be associated with student outcomes. A second version is teachers' use of the findings of research as principles of procedure with a broader process of decision making and problem solving. Although many of the techniques used for the teaching of specific teaching skills for prospective teachers have disappeared from the literature, newer versions have

emerged to take their place, such as reflective teaching. According to Zeichner and Liston (1990), despite the variation among social efficiency approaches, the common thread that ties them together is their trust on the scientific study of teaching as the major source for determining the teacher education curriculum.

The Developmental Tradition

The fourth reform tradition is the Developmental Tradition. According to Kliebard (1986), the most distinguishing characteristic of this tradition is the assumption that the natural development of the student provides the basis for determining what should be taught to students in the schools and to the teachers by research involving observation and description of the child's behavior at different developmental stages.

Three metaphors were associated with the developmental tradition in teacher education. First, the teacher as naturalist stressed the importance of skill in the observation and study of children's behavior in natural settings. Educating prospective teachers to conduct observation and plan activities on the basis of their observations was the key in this teacher education reform tradition. Second, the teacher as an artist has a deep understanding of child development, and is able to excite children about learning by providing activities in a stimulating environment. Prospective teachers were provided with a variety of experiences in dance, creative dramatics, writing, painting, and storytelling to enable them to exemplify for their students an inquiring, creative, and open-minded attitude. Third, the teacher as researcher. The focus is on fostering the teacher's experimental attitude toward practice. Teacher educators were to provide instruction to prospective teachers about how to initiate and sustain ongoing inquiries in one's own classroom.

During this tradition child-centered pedagogy and open education received widespread attention in the U. S., and a number of experimental teacher education programs were initiated. About this same time, several versions of developmental tradition emerged such as The Humanistic Approach and Personalized Teacher Program.

These programs are guided to make teacher preparation more relevant by gearing the curriculum to the developmental concerns of preservice students (Feiman-Nemser, 1990). In addition to the personal understanding, knowledge of human development and the processes for creating supportive learning environment to promote growth, are considered to be at the heart of the teacher education curriculum (Doyle, 1990).

Conclusions about Reforming Tradition

These reform tradition frameworks are one possibility for thinking about ideas and practices in teacher education. They constitute a source of ideas and practices to draw from in deliberating about how to prepare teachers in a particular context. Each one of the traditions highlights different issues to be considered.

The social reconstructionist tradition highlights the teacher's obligations to students and society, challenging teacher educators to help prospective teachers to learn to align school practices with democratic principles.

The academic tradition focuses attention on the distinctive work of teaching. What distinguishes teaching from other forms of human service is its concern with helping students learn worthwhile things they could not pick up on their own.

The social efficiency and developmental traditions represent different ideas about the nature and sources of knowledge about teaching and how it can be acquired and developed. They constitute a source of ideas and practices to draw from in deliberating about how to prepare teachers in a particular context.

Most existing teacher education programs represent some mixture of different traditions. These reform traditions exists because people hold different expectations for schools and teachers. Teacher educators cannot avoid making choices about what to concentrate on. These frameworks can help teacher educators gain deeper understanding of the fundamental differences in assumptions and goals underlying reforms and programs. All these reform traditions must confront the question of what teachers need to know and how they can be helped to acquire and develop that knowledge.

References

Adler, S., & Goodman, J. (1986). Critical theory as a foundation for methods courses. Journal of Teacher Education, 37(5), 2-8.

Doyle, W. (1990). Themes in teacher education research. In W. R. Houston (Ed.), Handbook of research on teacher education (pp. 3-24). New York: Macmillan.

Edmundson, P. J. (1990). A normative look at the curriculum in teacher education. Phi Delta Kappan, 72(9), 717-722.

Feiman-Nesmer, S. (1990). Teacher preparation: structural and conceptual alternatives. In W. R. Houston (Ed.), Handbook of research on teacher education (pp. 212-233). New York: Macmillan.

Kliebard, H. M. (1986). The struggle for the American curriculum 1893-1953. Boston: Routledge & Kegan Paul.

Liston, D. P., & Zeichner, K. M. (1990). Teacher education and the social context of schooling: Issues for curriculum development. American Educational Research Journal, 27(4), 611-636.

Powell, A. G. (1976). University schools of education in the twentieth century. Peabody Journal of Education, 54(1), 3-20.

Sigel, I. E. (1978). Constructivism and teacher education. The Elementary School Journal, 78(5), 333-338.

Shulman, L. (1986). Those who understand: Knowledge growth in teaching. Journal of Educational Research, 15(2), 4-14.

Shulman, L. (1987). Knowledge and teaching: Foundation of the new reform. Harvard Educational Review, 57(1), 1-22.

Zeichner, K. M., & Liston, D. P. (1990). Traditions of reform in U.S. teacher education. Journal of Teacher Education, 41(2), 3-17.

Developing a Personal Statement About A Philosophy of Education

Elliott Seda

My philosophy of education is that students learn by experience; they learn by doing. As a teacher I give students the opportunity to participate in the learning process. Learning is more effective when more senses are used. This is accomplished by students experiencing and being immersed in different learning environments. Through experience I try to cultivate in students critical thinking and problem-solving skills. These skills are imperative in a society such as ours that is constantly changing. Students must be able to change and to adapt with the changes in society. Being able to adapt can only be accomplished through problem-solving experiences. In providing this experience, I consider students' interests and concerns and apply the learning experiences to these interests and concerns. I attempt to integrate all subject matter to "real-world" situations so that students may transfer skills used while learning to their own lives. Certain rules in the classroom will be given to students, while others will be developed with student input. The basic three "R's" are essential but other areas (classes) develop from the three "R's" and thus need to be taught. Most of the concepts in the area of moral values should be taught at home. Although I consider myself the "authority" or "expert" in (a) subject area(s), I do not know everything, for there is always something new to learn and to learn from others. This concept of "all-knowing" yet "not-knowing all" I consider when I teach my students. They can learn from me as much as I can learn from them. I do not rely on the curriculum or the textbooks as my only source of information. Rather, I use these as guidelines in preparing my lessons. I do not become dependent on the curriculum or the textbooks. I extract the contents of these to provide a variety of learning experiences. Teaching, as well as learning, is a democratic, intellectual, individual, and cohesive experience.

The above paragraph is the author's statement of his philosophy of education. It has been used as a guideline for choosing pedagogical and disciplinary methods for the classroom. Other areas in education have been affected by this philosophy such as curriculum development, teaching strategies and textbook usage. This effect is due to the direct relationship between the philosophy expressed in the statement and the classroom environment. "Knowledge of the basic content of various philosophical positions aids in analyzing the consequences that are likely to result from implementing particular curricular and methodological designs" (Gutek, 1988, p.10). This paper will discuss the relationship and effect of the philosophical statement and the classroom environment. In addition, it addresses the importance of teachers developing a personal philosophy of education statement. Four philosophies which may become the bases of teachers' philosophies need definition, along with the learning processes most attuned to that philosophical position. The four philosophies and their resultant philosophies of education examined in this paper are: Idealism-Essentialism; Realism-Perennialism; Pragmatism-Progressivism; and Existentialism.

Idealism-Essentialism (I-E)

Idealists believe that moral and spiritual reality are the chief explanations of the world. Intuition or recollection is the nature of knowledge. Although truth is possible for some people, most operate on the level of opinion. A person's mind is endowed with rational ability and a will capable of making choices. Gutek (1988) states:

> In Idealism, the process of knowing is that of recognition or reminisence (sic) of latent ideas that are performed and already present in the mind.... Through intuition, introspection, and insight, the individual looks within his or her own mind and therein finds a copy of the Absolute. Thus knowing is essentially a process of recognition, a recall and rethinking of Ideas that are latently present in the mind. What is to be known is already present in the mind. the challenge of teaching and learning is to bring this latent knowledge to consciousness (p. 22).

Essentialism, whose philosophical basis is Idealism, emphasizes essential skills and academic subjects. Concepts and principles of subject matter are to be mastered. The competent person is to be educated and intellectual growth in the individual is to

be promoted. Essentialists believe that the mind of a student should be regarded as a sponge that absorbs facts and knowledge. Rickover (1958) states that "{f}or all children, the educational process must be one of collecting factual knowledge to the limit of their absorptive capacity" (p. 61). Schools should not be concerned with problems of adolescents but with the intellectual development of the students.

Teachers who use rote memorization and imitation activities as a method of teaching are following the Idealist-Essentialist (I-E) philosophy. Traditional models of drilling to exercise the mind and transferring of knowledge to new situations are Idealistic. I-Es will also accept any method that achieves their scholastic ends. Power (1982) states that "idealists are willing to give ingenious and skillful teachers the freedom to discover and use those methods most effective in a particular scholastic situation" (p. 86). The I-E's pedagogical methodology focus on recognition and on stimulating the student's "own intuitive and introspective self-exploration" (Gutek, 1988, p. 28). Although I-Es will accept any method, as stated previously, the Socratic dialogue or dialectical method is preferred. In this method, teachers stimulate students' awareness of ideas by asking leading questions about human concerns. Group activities are done so that students develop a community of interest in which all want to participate. Basically, teachers who lecture in order to develop in students specific concepts in subject matter with traditional, unchanging and rigid views, are Idealists-Essentialists.

In choosing textbooks, Samuelson & Markowitz (1988) state:

> Idealist schools believe that original sources (preferably) neither translated nor paraphrased are the best books available. Reading is a significant learning avenue and books are very important. It is preferred that there is little or no art work or charts or pictures supporting the text. Words are considered sufficient. Textbooks and library books are the important repositories of truth (p. 105).

I-E teachers are the authority in the classroom and masters of the subject. They are in control of the classroom and are to be respected because of the knowledge and high standards held. Teachers that rely on specific rules, rewards, and punishments

are I-Es. Many believe in corporal punishment and others will say that "{a}pplying the hardwood doesn't really get at the problem" (Hamm, 1981, p. 175). Discipline is achieved by doing tasks that discipline the mind and body. Self-discipline is learned by doing tasks that one does not wish to do. Kneller (1964) states: "When a pupil misbehaves, the teacher would ask him what would happen if everyone behaved in this way. Is he setting a good example for his classmates to follow" (p. 34)?

The curriculum for I-Es emphasize the three R's, English, mathematics, science, history, and minimal foreign language. "The purpose of the curriculum is to introduce culture, without which man could not become civilized" (Samuelson & Markowitz, 1988, p. 44). I-Es place minimal importance in the arts, physical education, homemaking, and vocational education. These subjects are too expensive in terms of materials, facilities and student-teacher ratios. These subjects are not strictly academic. In addition, teaching moral values is not the job of the school; therefore, sex education, and drug education would not be found in I-Es curriculums.

In summary, teachers whose philosophical statement describe lecture, recitation, and/or rote memorization as pedagogical methods, reflect on Idealist-Essentialist philosophy. If the statement also contains emphasis on the three R's and traditional subject matter in the curriculum, this same philosophy is being espoused.

Realism-Perennialism (R-P)

Realists-Perennialists view the world in terms of objects and matter. One comes to know the world by the senses and by reason. "Human behavior is rational when it conforms to the laws of nature, and when it is governed by physical and social laws" (Ornstein & Hunkins, 1988, p. 30). R-Ps emphasize the past to develop knowledge which is constant, absolute, and permanent. They cultivate the rational person and develop the intellect, the person's highest power.

> The R-Ps encourage human beings to define themselves by framing their choices rationally, to realize themselves by exercising their potentiality for excellence to the fullest; and to integrate themselves by ordering the various roles and claims of life according to a rational and hierarchical order (Gutek, 1988, p. 46).

Teachers that use reinforcement and/or behavior modification as a pedagogical methodology are following R-Ps view of learning. "{L}earning is seen basically as a bonding of stimulus and response. It is a behavioristic approach to the learning act" (Samuelson & Markowitz, 1988, p. 98). R-P teachers would primarily use lecture, recitation and essays for activities in combination with some demonstrations, field trips, and research papers. Teachers are the experts in the subject and thus facts and information are to be taught efficiently. Media and visual aids may be used by teachers as an activity in the classroom, since R-Ps "(were) the first to support the written words in textbooks with pictures and diagrams" (p.52).

Therefore, R-P teachers would definitely choose textbooks that contain pictures, charts, and graphs. They would look for textbooks in which the material is, as a result of research, logical, sequential, and scientifically developed.

R-Ps' disciplinary code is similar to the pedagogical methods used. Teachers establish the rules on the very first day and students follow these by drill and force. Behavior modification, reinforcement, extinction, and assertive discipline are all methods that R-P teachers use in developing a discipline code. Therefore, rules are established by teachers, and the reinforcements for obeying these rules, as well as corrective measures for persistent misbehavior, are enforced. Finney (1928) states on discipline:

> It...should be kept out of sight for the most part.... On the surface...the school should present the appearance of voluntary self-government by students themselves.... But the student body should understand perfectly that absolutely irresistible compulsion is closeted with the faculty and board, to be used to the uttermost if necessary. And it should be brought to bear upon the lessons as well as upon school decorum and ordinary morals (p. 480).

The curriculum for R-P teachers is based on the three R's. Mathematics, foreign language, science, English, and social studies have high priority in the curriculum. Thus, close scrutiny is placed on these subjects when funds are allocated for materials and equipment. Courses which are founded on, and contribute to, the study of nature are the cornerstone of the curriculum. The classical subjects are emphasized and little

or no room is provided for electives. Teachers take into consideration the readiness, maturation, and previous learning of students when developing the curriculum for a specific subject.

> {T}he Realist curriculum at the primary level involves instruction in the tools of reading, writing, and computation that are needed for subsequent successful study and inquiry into the systematic subject-matter disciplines.... Children should also gain experience with research methods such are using the library.... (T)he secondary and collegiate curriculum consists of the bodies of funded knowledge that are regarded as repositories of the wisdom of the human race as determined by the most authoritative scholarship (Gutek, 1988, pp. 48-49).

Therefore, teachers that have strict rules for students to follow, use lecture, media, behavior modification, and reinforcement as pedagogical methods and for activities in class, reflect a Realist-Perennialist philosophy.

Pragmatism-Progressivism (P-P)

Pragmatists-Progressivists believe knowledge is a reality that is constantly changing. Students learn by engaging in problem-solving. Since the learner and the environment are always changing, problem-solving techniques are transferrable to many subjects and situations. P-Ps emphasize activities and experiences rather than verbal and literary skills. Developing the ability of how to think and to think critically is more important than what to think. "Teaching is more exploratory than explanatory. The method is more important than the subject matter" (Ornstein & Hunkins, 1988, p. 30). P-Ps are more concerned with what is practical and useful. "Learning by doing," experiencing, and experimenting are terms used by P-Ps.

> Pragmatists define learning as a change in behavior resulting from experience(s) in which the learner is actively involved in thinking, solving problems, constructing, and reconstituting or reconstructing experiences. More socially valuable education results from such schooling, say the pragmatists. Learning is seen as a process (Samuelson & Markowits, 1988, pp. 98-99).

Teachers who use problem-solving, role-playing, dramatization, active participation, discussion, and group work in classroom activities espouse the P-P philosophy. The more opportunities, or the more activities teachers provide for experimenting or experiencing, the more effective learning will be. Reinforcement,

behavior modification, gestalt, and field theory are pedagogical methods used by P-P teachers.

Although P-P teachers are more knowledgeable in the subject matter than the students, they do not dictate, but rather guide and facilitate learning. Teachers are fellow participants with students. Therefore, as facilitators or guides, P-P teachers do not begin with disciplinary rules the first day of class. "Rules are made only as they become necessary--through discussion and agreement" (Hamm, 1981, p. 140). A discipline code is established as a democratic process in which students have input into the consequences of misbehavior. "Students are expected to be involved in disciplining themselves as a means of contributing to a positive social climate for all (internal and external)" (Samuelson & Markowitz, 1988, p. 68).

P-P teachers choose textbooks that serve a practical and utilitarian purpose for students. "(Textbooks) are tools to be used by the individual to make sense out of one's own world" (Samuelson & Markowitz, 1988, p. 106). P-P teachers would use textbooks as reference guides in conjunction with other sources such as media to provide learning experiences. The textbook chosen would be one that might not contain all the information expected of a subject so as not to create a dependency on, or "a teaching from," the book.

On the curriculum process, P-P teachers do not look at curriculum as a list of subjects but as skills and processes to be learned. Elements of the curriculum involve social studies, manual and practical arts, problem solving, living skills, language arts, human problems, citizenship, consumer skills, and vocational arts. An example of a Pragmatic curriculum, as recommended by Dewey (1916, pp. 228-270), involves three levels of organization: 1) making and doing which engages students in projects and activities using and manipulating raw materials; 2) history and geography where these are not taught as "discretely organized bodies of information" but begin with the learners' environment so as to gain perspective into time and place; and 3) organized sciences or subjects which allow the learner to be exposed and to use various scientific

knowledge in researching and solving problems. Thus, the curriculum for P-Ps may be both intra-and interdisciplinary. Overall, the curriculum development process must attempt to ask and answer these questions: "Does (the curriculum) teach problem-solving, is it practical, is it utilitarian, does it have relevance in terms of how a child of a given age views the world now and in the future and help them figure out how to improve their lot and society's" (Samuelson & Markowitz, 1988, p. 46)?

Teachers who are flexible and provide practical experiences in learning are demonstrating a Pragmatic and Progressivist philosophy. In addition;, if textbooks are chosen to be used as reference tools, and the disciplinary code is established with student input as a democratic process, the philosophical basis is also Pragmatic and Progressivist.

Existentialism

Existentialist teachers have similar characteristics to humanistic educators. They are concerned with the choices an individual makes, and that these choices, whether minor or significant, are decisions that lead to self-definition. "A person creates his or her own definition and in doing so makes his or her own essence. We are what we choose to be" (Ornstein & Hunkins, 1988, p. 31). Learners decide what is true and would choose the knowledge they wish to possess. Life and education for Existentialists arise from an awareness "that every choice is an act of personal value creation" (Gutek, 1988, p. 120). Because Existentialists do not recognize many standards, customs, and traditions, especially as these relate to group interactions, they may encounter difficulties in large institutions such as schools. Schools are set up as systematic, disciplined, and socialized organizations that rely on group instruction and sometimes restrict individuals' behaviors. "Schooling is a process that limits students' freedom and that is based on adult authority and on the norms and beliefs of the mass of common culture" (Ornstein & Hunkins, 1988, p. 31).

For Existentialists, all instructional methods and activities revolve around independence, self-determination, and "self-actualization" (Maslow, 1968, Chap. 2) in

the learner. Teachers who use dialogue, the Socratic method, dramatic presentations, creative activities, and individual readings are espousing an Existentialist philosophy. Any of these methods or activities must have, as the primary goal, the development of the self and individual expression. "The teacher tries to promote an 'encounter' between and among students, knowledge, and the search for self in order to establish individual meaning and relevance" (Samuelson & Markowitz, 1988, p. 53). Thus, teachers would try to have as many individualized activities as possible, as opposed to group activities.

Existentialist teachers would rely more on the library than on a particular textbook. More resources allow for the development of the whole individual than one specific text. Because of this, any type of textbook would suffice since it would be an additional resource for the development of the self. Although many resources are used, Existentialist teachers focus on the meanings students attach to concepts in the words. "Words by themselves have no meaning" (Samuelson & Markowitz, 1988, p. 106).

A disciplinary policy may not exist in Existentialist classrooms. If there is one, the policy may be one of permissiveness where students accept the results of good and bad behaviors, where "discipline is individually determined" (Samuelson & Markowitz, 1988, p. 68). Punishment for misbehavior may occur but it should not be done by humiliating or ridiculing students in front of the class. Robbing students of their self-respect or talking down to them must be avoided (Kneller, 1964, p. 67). Because discipline is individual, internal, and within the control of students, when to punish a behavior is a question to be asked. Hamm (1981) states that "(t)here is no predetermined answer. Each teacher must honestly deal with it at the time, using as much humanity, humility, and good judgement as possible" (p. 127).

In developing a curriculum, Existentialists would stress self-expressive activities that illustrate emotions, feelings, and insights. Therefore, music, drama, dance, creative writing, painting, and film would be emphasized since these cultivate self-expression through aesthetic experiences. Subjects such as history, language,

mathematics, and science are tools to assist in developing subjectivity. These subjects are bodies of knowledge and sources of information. What is crucial is not the structure of knowledge but "the student's appropriation of the subject by choosing and giving meaning to it" (Gutek, 1988, p. 127). Morris (1966) states that the curriculum emphasizes experiences that "arouse the individual's own private way of looking at life" (pp. 124-125). For Existentialists, the curriculum is affective rather than cognitive.

Therefore, teachers who emphasize humanistic traditions in the instructional environment by allowing openness and free self-expression in classroom activities, in disciplinary actions, in methods of instruction, and in curriculum development, have developed an Existentialist philosophy.

Building A Philosophy of Education

All teachers have beliefs, values, and feelings about education, specifically the teaching and learning processes. "There is rarely a moment in a school day when a teacher is not confronted with occasions where philosophy is a vital part of action" (Ornstein & Hunkins, 1988, p. 26). They all choose learning methods that are aligned with their beliefs and values about learning. The instructional interaction between teacher and student, from the teacher's perspective, is dependent on the teacher's beliefs and values about educational interactions. When teachers choose textbooks or write curriculums, their beliefs and values (philosophy) affect how these two activities are undertaken.

> Philosophy (beliefs and values) provide (educators) with a framework for broad issues and tasks, such as determining the goals of education, the content and its organization, the process of teaching and learning, and in general what experiences and activities they wish to stress in schools and classrooms. It also provides them with a basis for dealing with precise tasks and for making such decision as what workbooks, textbooks, or other cognitive and non-cognitive activities to utilize and how to utilize them, what homework to assign and how much of it, how to test students and how to use the test results, and what courses or subject matter to emphasize (Ornstein & Hunkins, 1988, p. 26).

In order for teachers to reinforce for themselves and other the beliefs and values they hold about educational issues and activities, a clear, concise statement is

imperative. A personal philosophical statement helps teachers, students, the school, and the parents to understand not only the what of education (subject matter), but the how and why of education. "(O)ur philosophy of education influences, and to a large extent determines, our educational decisions, choices, and alternatives" (Ornstein & Hunkins, 1988, p. 25).

In business, particularly in the area of selling, salespeople are encouraged to develop a personal format (philosophy) of dealing with or selling to customers. This format, plus the goals to be achieved, are written and read out loud each day. This writing and reading of the statement may, mentally, have a direct effect on performance. Without a written statement the format and goals will be unclear and the customer may sense certain insecurities in the salesperson. Goals in business may be related to lesson plans in education. But, what guides the goals or lesson plan? A philosophy statement. Ornstein & Hunkins (1988) state that "(a philosophy) helps (educators) answer what schools are for, what subjects are of value, how students learn, and what methods and materials to use" (p. 26). Moore (1980) states that "(p)hilosophy helps provide clarification for what is or has been done" (p. 17). Power (1982) says that philosophical knowledge deals with educational questions such as "who is being educated, what are the ends or purposes of education and what general means (curricular and methodological) should be used to achieve the goals set" (p. 19).

Whitehead (1989) in discussing frustrations encountered developing and enforcing policies in university personnel departments, stated that "a series of belief 'personnel philosophy statements' (p. 29)" can help one face these frustrations. He discusses the purpose of the statements, which for this paper have been adapted to apply to education, as 1) to provide a foundation for teacher and student development; 2) to provide standards of expectations for teachers, students, and administrators; and 3) to help the teacher, the department, and the school meet their instructional goals.

A personal philosophy of education statement should begin with "My philosophy of education is." Webster's Dictionary (1983) defines philosophy as "a system of

principles for guidance in practical affairs." A principle is defined as a fundamental doctrine or belief, and a belief is an opinion or view. Feelings are opinions, and values are principles. Therefore, in order to encompass all these categories, the term "philosophy" should be used.

In addition, Counts (1929) suggests the following:

> A defensible philosophy of education should conform to at least five requirements: it should be systematically empirical in its foundations; it should be comprehensive in its outlook; it should be consistent in its several departments; it should be practicable in its provisions; and it should be satisfying to its adherents (p. 104).

Although future teachers may have little or no teaching experience to systematically use as a foundation for their philosophy, they may reflect on their experiences as students and use these in developing the philosophical statement. The realization that a philosophy may change as experience is acquired is inevitable. Kilpatrick (1951) states: "(I)t should be clear that a philosophy can never be stated once for all--any defensible philosophy must be constantly open to scrutiny, re-examination, and revision as new problems arise and new insights are gained" (p. 7). In addition, a philosophical statement may not reflect only one of these philosophical traditions as its base, but it may encompass several, thus being eclectic in nature.

Finally, a point about foundation courses in teacher education programs; these courses need to be taught with the practical educational applications described in this paper. A final assignment for a philosophy of education course should be for students to write a personal philosophy of education statement. In foundations courses, students are exposed to the many philosophies that underlie education. For most of these students, foundation courses are the first experience they have had with philosophy of education. These courses allow students to see how their beliefs about education fit into a particular philosophy. To reinforce these beliefs, writing them down is critical.

In teacher education programs, developing lesson plans and behavioral objectives is an important part of methods courses. Even though teachers know what they are going to teach and how they are going to teach, it is imperative that they develop a

lesson plan. This plan allows the teacher, the learner, the principal and the parents to assess whether learning actually occurred. The point here is, as stated previously, that a philosophy of education statement allows the teacher, learner, principal, and parents to assess the rationales for choosing teaching methods and textbooks, for disciplining in a particular way, and for decision-making in curriculum development. Some educators may not see the importance of a philosophy of education. There are many who do not have a conscious philosophy of education or a philosophical statement and they seem to do pretty well as educators. Marler (1975) states:

> We may suspect that the first point to be made is that at best (a philosophy of education) will only "help." Educational outcomes are not determined by philosophical factors alone, etc., etc. Nevertheless, the potential value of this assistance is not to be underestimated. Consciously examining the assumptions we now hold allows us to identify consistent and inconsistent elements--and there will be both. Questions can then be raised as to the adequacy of our assumptions, the elements which do represent our current commitments and those which at this point in time must be refined or rejected--or lived with. Given this base, we may become more aware of our own "hidden curriculum," i.e. that which we are communicating to our students in addition to those arithmetical facts or that knowledge of primary and secondary colors. As we integrate philosophical and nonphilosophical factors operational in a given situation, we may often be able to sharpen our awareness of ends and means which are both consistent with our assumptions and can be implemented. In short, as we develop a conscious realization of who we are, where we are going and why--albeit a base which will be refined over time--we begin to see possibilities beyond the moment...beyond the end of our nose (p. 355).

As students progress through their teacher education program, they should be encouraged by faculty members to re-examine their philosophies and make changes to their philosophical statements. This examination should continue throughout the teaching career as well. Only then will future teachers feel that philosophy of education has meaning and practical value in teaching. As Power (1982) states:

> As a parting word, let me suggest that a personal philosophy of education as a unique correlation of fact and belief is especially important in that it allows us to pose alternatives to that viewed by others as "common sense." If this is done with humility, with sensitivity to the human condition and with the widest perspective on the potentialities of this land and its peoples, we truly may have hope...hope for the growth of rationality...**hope for an exciting and demanding profession.**

References

Beck, C. (1974). Educational philosophy and theory: An introduction. Boston: Little, Brown, and Co.

Counts, G. S. (1929). Criteria for judging a philosophy of education. School and Society, 3(761), 103-107.

Dewey, J. (1916). Democracy and education. New York: The Macmillan Co.

Finney, R. L. (1928). A sociological philosophy of education. New York: The Macmillan Co.

Goodlad, J. I. (1990). Teachers for our nation's schools. San Francisco: Jossey-Bass.

Gutek, G. L. (1988). Philosophical and ideological perspectives on education. Englewood Cliffs: Prentice Hall.

Hamm, R. L. (1981). Philosophy and education: Alternatives in theory and practice. Danville, IL: The Interstate Printers & Publishers.

Jewett, R. E. (1980). H. Gordon Hullfish: Master teacher. Teaching Education, 30(3), 40-42.

Kilpatrick, W. H. (1951). Philosophy of education. New York: The MacMillan Co.

Kneller, G. F. (1964). Introduction to the philosophy of education. New York: John Wiley & Sons.

Knock, G. H., Rentz, A. L., & Penn, R. (1989). Our philosophical heritage: Significant influences on professional practice and preparation. NASPA Journal, 27(1), 29-31.

Lepley, R. (1931). Dependability in philosophy of education. New York: Teachers College.

Marler, C. D. (1975). Philosophy and schooling. Boston: Allyn and Bacon.

Maslow, A. H. (1968). Toward a psychology of being. New York: D. Van Nostrand.

Moore, G. E. (1980). A philosophy primer for agricultural educators. The Agricultural Education Magazine, 61(6), 15-17.

Morris, V. C. (1966). Existentialism in education. New York: Harper & Row.

Ornstein, A. C. & Hunkins, F. P. (1988). Curriculum: Foundations, principles, and issues. Englewood Cliffs: Prentice Hall.

Peterson, F. E. (1933). Philosophies of education current in the preparation of teachers in the United States. New York: Teachers College.

Power, E. J. (1982). Philosophy of education: Studies in philosophies, schooling, and educational policies. Englewood Cliffs: Prentice Hall.

Rickover, H. G. (1958). European vs. American secondary schools. Phi Delta Kappan, 4(2), 60-64.

Samuelson, W. G. & Markowitz, F. A. (1988). An introduction to philosophy in education. New York: Philosophical Library.

Webster's (1983) ninth new collegiate dictionary. Springfield, MA: Merriam-Webster.

Whitehead, J. C. (1989). Philosophy statements for better personnel policies. CUPA Journal, 40(1), 29-31.

The Novice Teacher: A Species At Risk

George M. Bailor

When school districts seek out teachers to replace veterans who have kept high standards in practice, they want the best individuals affordable to them. In an age of school reform, hindered by teacher shortages, public demand for quality education, and increasing pressures put upon schools at national, state, and local levels, quality novice teachers may be a commodity affordable only to affluent school districts.

The purpose of this paper is to discuss the basic personality attributes felt to be a positive influence upon teacher development. Further, a discussion of competency and testing for probable teaching success will be presented. Implications and recommendations will be offered for consideration to teacher preparation institutions, school districts, and future educators.

The writer cautions that, in the final analysis, the reader must decide to accept or reject the intent of this paper. Many aspects of education are like that. Acheson and Gall (1987) suggest that it is up to the individual to formulate his/her own definition of good, effective teaching. There are many different and conflicting views of good instruction. Accordingly, the reader must analyze the following and make his/her decision as to its merit. It is offered in this spirit of free and critical thinking.

Desired Academic Knowledge and Attitudinal Characteristics of Teachers

The actions and behavior of teachers have long been a topic of interest to researchers. Many have tried to decide the behaviors that are the most effective in the classroom environment. Robinson and Swanton (1980) investigated generalization of behaviors in certain teaching situations. That is to say that certain conditions exist which require trained behavior in reaction to different classroom occurrences. Robinson and Swanton felt that the evidence was insufficient to conclude that behavioral training is indeed practical or that generalization of behavior is a necessity in teacher training.

Two characteristics emerged from the research referred to above. The authors examined two basic attitudes which seemed relevant: teachers who had an interest in learning and teachers who were "keen to participate" (Robinson & Swanton, 1980).

More recently, Good and Brophy (1987) listed certain attitudes and expectations that should be possessed by individuals if they are to attain success in the teaching profession. They felt teachers should enjoy instruction and must be actively engaged in meeting the needs of the individual students. Teachers should have good intentions and realize a positive self-concept while expecting much of the same from their students. Attitudes should be "allies and tools" to be properly maintained and implemented. If good attitudes are to be beneficial, they should not be allowed to solidify into defense mechanisms that permit ignoring problems and manipulation of thought to explain away weaknesses, rather than finding a resolution to them (Good & Brophy, 1987).

There doesn't seem to be any particular model or plan for instructors to adapt because teaching has so many variables to consider when we appraise what teachers do within their classes. Perhaps this idea centers around the notion that no two children are alike, nor are the communities in which the teacher works. Gideonse (1989) states, "Teachers work well with children of widely differing capacities, with children born of the well-to-do and of the less privileged, and with children from varying cultural and ethnic groups. Teachers should be able to consult to work effectively with other professionals in their school system. Teachers must be able to relate to the parents of the children they teach." He goes on to remind us of the "complex, demanding and highly individualistic" functions of teaching deeply set in "organizational and sociopolitical" settings (Gideonse, 1989, p. 24).

In order for any person to function successfully in such a diverse environment, it becomes clear that he/she must be unique and adaptable to change. We become increasingly aware that such individuals must have a solid self-concept. These novice teachers should be confident in themselves and be self-assured, which will permit them

the liberty of being risk-takers who will use these traits to better meet the needs of their students (Robinson, Noyes & Chandler, 1989). In addition, planning and organizational skills are inherent to teaching success. Motivated individuals are progressive rather than traditional in their thinking (Robinson, et al, 1989).

Pre-service candidates, therefore, should be self-confident persons interested in people and able to work with students, parents, and colleagues through meaningful interaction. In order to achieve this level of sensitivity, pre-service teachers should be reflective learners who will nurture the ultimately desired notion of "reflective practitioner" (Robinson, et al, 1989). In this manner, they may build upon their self-esteem and respect for others which will allow them to develop into leaders who will conduct and control their classes (Shechtman, 1989).

This idea of a critical thinker indicates that pre-service teachers must use their technical knowledge for applications in research development and work toward updated, effective methodologies. These young teachers should use their classroom experience to think practically about the world in which they work and become artistically aware of new research findings to enhance their instruction (Gage & Berliner, 1989).

The qualities discussed above might appear to be representative of high achieving students with impressive grade-point averages. Evidence seems to be non-supportive of this assumption. Evertson, Hawley, and Zlotnik (1985) and Hawley (1986, 1989) concluded that, "The smarter you are, the better teacher you will be. The intuitively sensible assertion cannot be clearly documented. Within the range of the intellectual abilities of teacher candidates who are hired or complete their programs (many do not), there appears to be little relationship between teacher effectiveness and scores on the National Teacher's Exam, scores on the Scholastic Aptitude Test and American College Test, or grade-point averages in college. Some tests of teachers' verbal ability have been found to correlate modestly with student achievement and high teacher evaluations" (Houston, 1990, pp. 120-121).

It has been reported that among the academic community, teacher training programs admitted almost anyone who could achieve minimum entrance standards into college (Houston, 1990). Grades may or may not indicate future classroom success; as discussed above, the research sociologist, Randall Collins (1979), advances our speculation about student populations even further by stating: "At college, as well as secondary levels, close studies of what actually happens find students preoccupied with strategies for achieving grades with a minimum of learning" (Collins, 1979, p. 19). Collins is not referring to just education majors, but all who are attending school in order to gain credentials to enter the vast professional job market.

We must look again and view individuals regardless of high GPA. We must consider persons who are confident and perceive themselves as having control over their own fate, decision makers who are well-organized and attuned to the world around them (Pigge & Marso, 1990).

Many quality aspects of a student can be examined by a measurement of knowledge through various testing situations. However, there are other attributes of an individual's personality which can only be measured at minimal levels. Intellect and positive individual traits combined together make up a person's personality. We must insure that we consider the correct combination for classroom leadership and instruction.

To Test or Not To Test

Lawyers, doctors, pharmacists, engineers, the list goes on and on. Professionals in all areas must satisfactorily complete a test to measure competency in their chosen specialization. Teachers have been scrutinized for not having to complete such a test. More recently, however, novices as well as veterans have been subjected to competency testing, and not without opposition from various levels within and outside the profession. The following are some of the major issues at stake when testing for teacher competency.

A majority of the states now endorse and carry out teacher competency testing (Yoder & Janini, 1987). Testing has been supported by the public (Yoder, et al, 1987) and some teacher organizations (Cohen, 1989), and condoned by the federal courts. With a majority of the population so much in favor of teacher competency examinations, it seems pointless to concentrate energies on an attempt to sway overwhelming public opinion in an attempt to topple the program. However, a brief review of arguments, both pro and con, allows the reader the liberty to decide upon rational choices that must be considered and how the testing process should be carried out.

The opponents of competency-based testing present some convincing arguments which are based upon sound logic. Perhaps the first considerations are the qualities discussed earlier in this paper. The aforementioned qualities of effective teaching are had to measure on a pencil-and-paper test. Cohen describes instruction this way: "... much of teaching is dynamic and interactive and does not lend itself to measurement by use of multiple choice tests" (Cohen, 1989, p. 235). Good teacher candidates might be rejected because tests such as the National Teacher's Examination do not adequately sample the domain of behaviors essential to teaching (deHart & Connelly, 1985). Tests such as the NTE emphasize knowledge, not performance, ethical values, creativity, emotional maturity, or attitudes (deHart & Connelly, 1985).

Educators cannot discount the importance of specialization. However, classes are composed of many diverse personalities. Schools are located within numerous environments with some more favorable than others. The individual who must teach in these different circumstances must possess additional skills in order to succeed (deHart & Connelly, 1985).

We can transfer the above thoughts for discussion when arguments as to the validity of the National Teacher's Examination or similar tests are considered. This lack of sensitivity to human personal attributes was the focus of concern which led to court challenges against competency testing. The tests are primarily validated upon their content or those skills which are thought to be necessary prerequisites to being able to

teach (Johnson, 1988). Although there were successful appeals to teacher testing, in the end the courts claimed that those which are valid and acceptable components of testing for certification included:

1. An assessment of the test's content in regard to teacher training curricula.
2. An assessment of appropriateness of test content to job requirements as agreed upon by practicing professionals.
3. A process for establishment of minimum qualifying scores for certification as agreed upon by practitioners in the field of education (Cohen, 1989, p. 235).

Perhaps the most successful legal challenges to teacher testing were a result of item bias. Quite simply, this means that test questions cannot invalidate a person's score or endanger his/her chances of passing the test or being denied employment in a chosen profession because a test item exhibits prejudice toward a certain minority group (Johnson, 1988). Questions cannot discriminate against any person because of group membership. Although this has been the argument for successful appeal, in the end, the courts have supported testing if civil liberties were not violated. Johnson (1988) points out that: "In the context of teacher certification testing," the nature of the information being tested is relatively straightforward, "where the overriding goal is to insure that only qualified candidates can be certified...the cultural fairness issues are of even less significance" (Johnson, 1988, p. 252).

Even though the courts have reviewed many cases involving ethnic minorities, pass rates on competency tests are still devastatingly low for those who have membership in such groups (Garcia, 1986).

The last major argument in the courts was that of failure to insure due process to the test recipient. The test taker must realize that failure to achieve an acceptable score can mean denial of a license to practice in the teaching profession (Cohen, 1989). A novice teacher cannot assume that he/she will complete the college teacher preparation program and have "legitimate expectation" of receiving a state license just as the diploma was conferred. As Cohen states: "Obtaining state certification rests on the

concept of being properly well qualified. Because the public should be protected against incompetent teachers, merely attending college for four years does not automatically entitle a candidate to certification" (Cohen, 1989, p. 244).

Testing of our nation's teachers has been supported by the American public and reinforced by their judicial system. Perhaps the most important argument for validity is the one least tried, that of criterion validity. Criterion validity is that which is based upon successful teacher performance (Johnson, 1988).

As previously mentioned, content validity has gained the most attention in order to manufacture a least minority-biased test form. However, this procedure is based upon construction of an examination to determine if knowledge taught has been learned (Allan, Nassif, & Elliot, 1987). Presumably, content validity has supported the teacher preparation program, demonstrating that the knowledge measured by the test is proportional to minimal acceptable teaching performance (Chernoff, Nassif, & Gorth, 1987).

It has been recognized that content validity does not insure a complete inventory of skills necessary for effective classroom teaching success (Chernoff, et al., 1987). Those skills are subject to opinions of experts and their agreement upon how a question is elicited or quantified (Madaus & Pullin, 1987). Questions still arise regarding content validity; and as a result concurrent investigation still receives the most treatment (Madaus & Pullin, 1987).

Chernoff, et al. (1987) report that teacher competency tests tend not to measure interpersonal and individual personality traits or other people-related skills conducive to classroom performance. Such attributes are first possessed, then matured and positively transferred to application. The NTE measures subject knowledge so the same question is raised again. Does ability to take an off-the-shelf, paper-and-pencil test indicate accurately the probability of actual long-range teacher performance and success (Madaus & Pullin, 1987)? There is a need to further validate teacher competency testing. It is felt by some that teacher tests need added credibility. Since

the test defines the expectations of teachers, candidates should feel the reasoning employed to pass the subject knowledge portions of the test corresponds to some degree with the processes and complexities of the subject (Chernoff, et al., 1987).

The literature seems to indicate a need for more criterion-related validity, or a relationship of test scores and effectiveness in actual sustained classroom performance. Pursuit of this validity evidence is necessary. Historically the NTE's recommended use has been to evaluate subject area knowledge, and not for hiring, retention or dismissal purposes. Now, however, the NTE is used as the main testing procedure required for certification. Criterion validity is that which is based upon successful performance. How can we possibly agree on one correct way to teach that would fit every classroom situation? It is almost impossible to try to conceive such a battery of questions. Research for criterion-related validity on teacher competency tests is overdue and much needed.

Reaction, Implications and Recommendations

Research suggests that, compared to other professions, candidates who enter the teacher preparation programs in the United States are individuals who score at the lower levels on collegiate basic skills tests. The implication is that teaching is made up of a relatively low talent pool (Benderson, 1982). However, as mentioned earlier, grades and high GPA's are not necessarily indicative of success in the classroom. Accordingly, colleges have begun to establish test preparation programs to secure better success on competency examinations. Ball State conducted a study to test the effectiveness of such workshops in relation to NTE scores. Although results are inconclusive, these programs tend to have a positive effect on test performance. Should we direct energies to enhance test performance or should we think of better ways to prepare our young teachers for the real world of the classroom?

Thus far, we have established some evidence that personal attributes should be valid criteria for probable teaching success. Passing scores on the NTE show that a prospective teacher has at least minimal knowledge of subject material learned in college

preparation programs. Testing is presently considered a viable indicator of subject knowledge and classroom success. It appears the NTE and comparable testing procedures will be around for awhile, although high GPA and NTE scores are not always good indicators of success within the classroom environment. What more can be done? How can we better prepare our future educators?

Pultorak (1989) helps shed some light on the last area we must examine. A study of student teachers at Indiana State University concluded that the NTE measured well the knowledge of required college work in major subject areas, but performance in student teaching was overlooked (Pultorak, 1989). He likened his findings to those of Andrews, Blackman and Mackey, who found commonality in scores on the NTE and three student teaching performance items: appearance, enthusiasm and English usage. Pultorak (1989) further found that student teachers performed better on the NTE test of professional knowledge if they were highly interested and enthusiastic in their work, possessed high self-confidence, maturity, flexibility, responsibility and poise while maintaining appropriate voice quality and attire, and used correct oral and written grammar. Perhaps subjects who possessed these characteristics were highly concerned and interested in the teaching profession while they were enrolled. As a result, they gained a greater knowledge and understanding of the teaching profession (Pultorak, 1989).

This suggests that the good way to train teachers is to give the novice plenty of practical experience. A solid series of practicums, including student teaching, can provide diversified experiences needed for optimal pre-professional growth (Pennick, Yager & Berg, 1988). To become competent teachers, students must be deeply involved in teaching, have instructors who model desired behaviors, and receive considerable feedback on teaching techniques (Pennick, et al., 1988).

Only through actual experience can the qualities of sensitivity to the needs of students in the classroom be identified and assessed. With numerous experiences, novice teachers can become reflective practitioners willing to take risks and experiment

to find out what will work in different classroom settings. Nothing can substitute for the meaningful interaction of classroom activity and the learned reaction to different situations. Experience is the polish of effective classroom instruction.

Cohen (1989) suggests final evaluation and certification based upon a three-fold system as proposed in the Stanford Model.

1. Successful completion of subject mastery.
2. Examine the capabilities to teach area content (NTE).
3. Direct observation of teaching by carefully trained observers (Cohen, 1989, p. 262).

If we exist in a society that is constantly critical of the educational system and is test-oriented, we should at least allow our pre-service and veteran teachers the dignity to grow professionally and make use of their positive attributes. At this juncture, research seems to indicate a need for subject mastery and well diversified, actual classroom experience.

College cannot do it alone, however. As Irvin (1990) proposes, it must be a collaborative effort of the university and public school institutions. Together this new faculty can keep abreast of current research in education and also the newest developments within public school systems. In addition, those faculty could train others and be utilized by the schools for inservice and staff development training.

The concern for better teacher education and the establishment of teaching as a legitimate profession should be a concern to all of us, especially in the light of possible licensing of non-education professionals to fill the gaps in a time of increased teacher shortages (Hlebowitsh & Cady, 1988). It is the responsibility of all who have a vested interest in the education of teachers and the perpetuation of the profession into the twenty-first century.

References

Acheson, K. A., & Gall, M. D. (1987). Techniques in the clinical supervision of teachers: Preservice and inservice applications. White Plains, NY: Longman.

Allan, R. G., Nassif, P. M. & Elliot, S. M. (Ed.), (1987). Bias issues in teaching certification testing. Hillsdale, NJ: Lawrence Erlbaum Associates.

Benderson, A. (1982). Teacher competence. Focus, 10, 1-24.

Chernoff, M. L., Nassif, P. M. & Gorth, W. P. (Ed.), (1987). The validity issue: What should teacher certification tests measure? Hillsdale, NJ: Lawrence Erlbaum Associates.

Cohen, J. H. (1989). Legal challenges to testing for teacher certification: History, impact and future trends. Journal of Law and Education, 18(2), 229-265.

Collins, R. (1979). The Credential Society: An Historical Sociology of Education and Stratification. New York: Academic Press.

deHart, F. & Connelly, R. J. (1985). Competency testing of teachers: An attitude survey of prospective teachers in private and public universities. Action in Teacher Education, 8(1-2), 89-103.

Evertson, C. M., Hawley, W. D. & Zlotnik, M. (1985). Making a difference in educational quality through teacher education. In W. R. Houston (Ed.), Handbook of research on teacher education (pp. 120-121). New York: Macmillan Publishing Company.

Gage, N. L. & Berliner, D. C. (1989). Nurturing the critical, practical, and artistic thinking of teachers. Phi Delta Kappan, 71(3), 212-214.

Garcia, P. A. (1987). A study on Teacher Competency Testing and Validity with Implications for Minorities and the Results and Implication of the Use of the Pre-Professional Skills Test (PPST) as a Screening Device for Entrance into Teacher Education Programs in Texas. (NIE Grant No. NIE-G-85-0004). Washington, DC: National Institute of Education.

Gideonse, H. D. (1989). Relating knowledge to teacher education responding to NCATE's knowledge base and related standards. Washington, DC: American Association of Colleges for Teacher Education.

Good, T. L. & Brophy, J. E. (1987). Looking in classrooms. New York: Harper & Row.

Green, J. E. (1989). The effects of a preparation workshop on NTE test scores. The Teacher Educator, 25(2), 2-8.

Hawley, W. (1986). Notes on the redesign of teacher education. In W. R. Houston (Ed.), Handbook of research on teacher education (pp. 120-121). New York: Macmillan.

Hawley, W. (1989). Directions in teacher education in the United States. In W. R. Houston (Ed.), Handbook of research on teacher education (pp. 120-121). New York: Macmillan.

Hlebowitsh, P. S. & Cody, J. (1988). Retrenchment in teacher preparation: New Jersey's alternative credential. Educational Horizons, 66(5), 133-134.

Irvin, G. (1990). Collaborative teacher education. Phi Delta Kappan, 71(8), 622-624.

Johnson, S. T. (1988). Validity and bias in teacher certification testing. In Allan, R. G., Nassif, P. M., & Elliot, S. M. (Ed.). Bias issues in teaching certification testing, (pp. 35-49). Hillsdale, NJ: Lawrence Erlbaum Associates.

Madaus, G. F. & Pullin, D. (1987). Teacher certification tests: Do they really measure what we need to know? Phi Delta Kappan, 69(1), 31-37.

Pennick, J. E., Yager, R. E., & Berg, C. (1988). The practicum in teacher education: The Iowa-USTEP example. Teaching Education, 2(2), 73-79.

Pigge, F. L. & Marso, R. N. (1990). Academic, affective, and personal attributes of successful student teachers. The Teacher Educator, 25(4), 2-10.

Pultorak, E. G. (1989). How valid are undergraduate curricula in preparing teacher candidates for the NTE? The Teacher Educator, 25(1), 18-27.

Robinson, V. & Swanton, C. (1980). The generalization of behavioral teacher training. Review of Educational Research, 50(3), 486-498.

Robinson, W. P., Noyes, P., & Chandler, P. (1989). Motivational and attitudinal predictors of judged quality of novice primary teachers. Teaching and Teacher Education, 5(3), 179-187.

Shechtman, Z. (1989). The contribution of interpersonal behavior evaluation to the prediction of initial teaching success: A research note. Teaching and Teacher Education, 5(3), 243-248.

Shields, J. J. & Daniele, R. (1981). Teacher selection and retention: A review of the literature. In W. R. Houston (Ed.) Handbook of research on teacher education, (p. 104). New York: Macmillan.

Yoder, W. H. & Janini, D. (1987). Teacher testing: A status report. The Teacher Educator, 23(1), 23-25.

Teacher Preparation in Multicultural Education

Ramon A. Serrano

It is evident that with the growing trend of our minority population, teachers will need to become aware of the cultural differences within their students. Teacher trained in multicultural education will be warranted if we are to integrate cultural differences and take advantage of the students' cultural background with the content being taught. Multicultural education provides the opportunity for teachers not only to relate to their students' cultural background, but also to develop awareness and a sense of pride within the student.

This paper is divided into three sections. The three sections will discuss: the historical background of multicultural education; the definitions and goals of multicultural education; and teacher training in multicultural education.

Historical Background of Multicultural Education

The multicultural education process can be dated back to between 1800 and 1920. This process developed with the arrival of immigrants from Europe. The arrival of immigrants to the United States also brought about the movement known as Nativism (Suzuki, 1984). The Nativism movement persecuted, punished, and killed immigrants who were seen as a threat to the American society. Suzuki (1984) reported that Nativism was responsible for the so-called Americanization movement, whose primary goal was to quickly and forcibly assimilate into the American culture immigrants arriving to the United States.

Suzuki (1984) indicated that as a result of the Americanization process, intelligence testing became popular. This led to massive testing among immigrants in the United States. The results of the intelligence testing process indicated that the immigrants arriving to the United States were genetically inferior people. These results also contributed to the traumatic and brutal process of acculturation to which immigrants were subjected to.

Schools served as an instrument designed to Americanize immigrants into the host culture and therefore eliminate the groups' cultural identity. Suzuki (1984) also indicated that the process of Americanization was also thinly disguised in the melting-pot metaphor, which served as the dominant ideology and strongly influenced the shaping of our schools. The melting-pot metaphor has undergone transformation, and during the 1960s, voices of protest have been heard demanding equity and excellence in our educational system.

Cardova and Love (1987) reported that equity and excellence are a main concern in today's education. This has forced important issues on educators in the search for new strategies as a solution to the problems of meeting culturally different students' needs.

The search for equity and excellence lead to the development of TESOL and ESL programs during the 1950s and 1960s. Cardova and Love (1984) indicated that these programs did not solve the whole problem, because they were based on a deficit approach which assumed that the culturally different child had learning problems due to heredity or environmental deficiencies.

During the late 1960s and early 1970s several Civil Rights movements developed throughout the nation demanding equitable education for all students. Sleeter and Grant (1987) reported that originally these groups linked concerns only about racism in schools. As other movements developed, so did the movement for desegregation, bilingual education, special needs education, and the use of mainstreaming focused on making schools more accessible to students with different cultural backgrounds and needs. Sleeter and Grant (1987) also reported that originally multicultural education linked only concerns about racism; it later expanded and now addresses issues such as sexism, classism, and handicappism. Multicultural education like other movements began with only a few people expressing their concerns, but soon these few were joined by others who shared the same concerns about equity and excellence in education.

Sleeter and Grant (1987) indicated that during the early 1970s, only a few books and articles on multicultural education appeared, but soon after that a broad array of writings addressed related concerns, theoretical formulations, and recommendations. With the growing concerns in multicultural education, many writers and researchers have developed programs aimed at the integration of multicultural strategies within the curriculum. The development of these programs has brought about the need for goals and a clear definition of multicultural education. Once these two variables are taken into consideration, strong foundation will be developed on which to construct a multicultural program.

Definitions and Goals of Multicultural Education

In order to understand multicultural education, we must first understand the definitions and goals related to it. Suzuki (1984) defined multicultural education as the following: "Multicultural education is a multidisciplinary educational program that provides multiple learning environments matching the academic, social, and linguistic needs of students. These needs may vary widely due to differences in the race, sex, ethnicity, or sociolinguistic backgrounds of students. In addition to enhancing the development of their basic academic skills, the program should help students develop a better understanding of their own backgrounds and of other groups that compose our society. Through this process, the program should help students learn to respect and appreciate cultural diversity, overcome ethnocentric and prejudicial attitudes, and understand the sociohistorical, economic, and psychological factors that have produced the contemporary conditions of ethnic polarization, inequality, and alienation. It should also foster their ability to analyze critically and make intelligent decisions about real-life problems and issues through a process of democratic, dialogical inquiry. Finally, it should help them conceptualize a vision of a better society and acquire the necessary knowledge, understanding, and skills to enable them to move the society toward greater equality and freedom, the eradication of degrading poverty and dehumanizing dependency, and the development of meaningful identity for all people" (p.305).

Baker (1978) also defined multicultural education as: "The process through which individuals are exposed to the diversity that exists in the United States and to the diversity of the relationship to the world. This diversity includes ethnic, racial minority populations, as well as religious groups and sex differences. This exposure to diversity should be based on the foundation that every person has the opportunity and option to support and maintain one or more cultures, i.e., value systems, life styles, sets of symbols. However, the individual as a citizen of the United States has a responsibility of contributing to and maintaining the culture which is common to all who live in this country" (p. 393). As can be seen, both definitions not only define multicultural education, but also suggest the process that may be used in the development and implementation of multicultural education.

Multicultural education has developed a series of goals which serve as a base toward creating a positive learning environment within the classroom. These goals should not be limited to the student, but include the teacher as well. Suzuki (1984) presented a set of goals aimed at helping the student and the teacher in the process of multicultural education. These goals developed by Suzuki (1984) stated that students should be helped to: "develop positive feelings, attitudes, and perceptions toward their own and other ethnic groups, and develop a better understanding of their own ethnic backgrounds and those of other groups that compose our society; acquire knowledge, understanding, and appreciation of the experiences and contributions of racial minorities, white ethnic groups, and women to American society; overcome their stereotypes of ethnic groups; understand the nature of pluralism and interethnic conflicts; develop their ability to analyze critically and make intelligent decisions about complex social problems and issues; acquire knowledge of the historical and social realities of American society; and conceptualize and aspire toward a vision of a more equitable and democratic society" (pp. 305-306). Suzuki (1984) also stated that teachers must: "acquire knowledge, understanding, and appreciation of the experiences and contributions of racial and ethnic minorities in the American society;

understand the nature of pluralism and intergroup conflict in American society; develop a sound, coherent philosophical and pedagogical rationale for multicultural education; acquire knowledge and skills in identifying, evaluating, and utilizing multicultural curricular resources; learn how sociocultural factors influence learning and how to diagnose the learning styles and needs of students from different social cultural backgrounds; understand how their attitudes, values, and expectations can affect the motivation and performance of students; acquire knowledge of various multicultural approaches to teaching; acquire the necessary knowledge and skills in human relations for effectively managing a classroom of students from diverse sociocultural backgrounds; and help children increase their academic achievement levels in all areas" (pp. 306-307).

The goals mentioned above prove to be relevant for children of all ethnic backgrounds. These goals are aimed toward fostering the development of respect and understanding within all culturally different students and to serve as a bridge joining all cultures together. This joining of culture can be found in the concept of the salad-bowl in which all ingredients are integrated together, but each one maintains its distinct characteristic and identity.

When working within a multicultural environment, one of the most important factors in the success of a program is the teaching staff. The success of a multicultural program depends on the preparation of the teaching staff in regard to multicultural education. The following section will be dedicated to the preparation of teachers in multicultural education.

Teacher Training in Multicultural Education

The high proportion of different ethnic groups in our society has made multicultural education crucial in the United States. Teacher training in multicultural education is vital if we are to implement an effective program. We need to train teachers to understand and cope with differences among the culturally diverse students.

Grant (1981) indicated that multicultural education has been suggested because of the lack of preparation education programs have in cultural diversity within teachers. These programs do not prepare the teacher in understanding the different traditions, attitudes, and customs of culturally different students. Colleges face an important task in the preparation of teachers in multicultural education. Gooden and Ligons (1984) stated that one of the greatest challenges facing colleges and schools of education today is the preparation of teachers who will be able to work effectively in a multicultural society. Grant (1977) argued that teacher training institutions must reorganize and modify invalid Anglocentric models of teaching and incorporate the realities of today's society.

The development of an effective teacher training program is important if its purpose is to produce teachers that can understand and provide for the needs of culturally different students. A number of writers have outlined possible guidelines in developing teacher training programs. The following authors have suggested the important elements a multicultural teacher training program should include. Rey (1986) indicated that teacher training programs should involve:

- The historical approach of migration, and a sociolinguistic approach to language and its role in the cultural identity of the child.
- Conceptual, methodological tools, and training resources.
- A combination of methods in training teachers.
- Training stemming from political commitment and covering the whole educational system.

Nikolai and Davis (1986) pointed out that in training teachers, programs in multicultural education should also include the following aspects:

- Effective classroom instructional methods.
- Curriculum matter.
- Improving self-awareness, empathy, and positive relationships in the classroom.

- Classroom management.
- Positive relationships and participation of parents in school affairs.
- The development of greater cultural awareness.

Programs developed to train teachers in multicultural education should consider the environment in which teaching practice will take place. The preparation of teachers to work with children from different cultural and ethnic backgrounds needs to be experimental and the field setting is an important aspect in teacher training programs (Grant, 1981; McDaniel, et al., 1988). Prospective teachers need to receive first hand experiences in working with the culturally diverse student. Grant (1981) stated that the field setting in which students are placed needs to have culturally and physically different students.

Fuller and Adler (1987) reported that teacher preparation programs should:

- Develop personal identification with members of culturally diverse groups.
- Develop greater sensitivity for other cultures.
- Help preservice teachers define and appreciate their own culture.
- Help preservice teachers gain exposure to multicultural teaching techniques.

Cushner and Brislin (1986) indicated that teacher preparation programs should spend more time helping teachers:

- Become familiar with instructional strategies that promote better use of time.
- Develop a clear understanding of the relationship between adult expectations and student effort.
- Understand and analyze how contextual aspects surrounding the classroom instruction contribute to inequality within the classroom.
- Understand how critical learning resources are often distributed in ways that systematically disadvantage groups and classes.

Teacher training programs should emphasize the use of different cultural backgrounds within all content areas. The experiences and contributions made by different ethnic groups should be highlighted, creating a sense of pride within the

culturally diverse student. In order to accomplish an integration of culture and the content area, colleges and teacher preparation institutions must expose their preservice teachers to settings that are not monocultural. Heard (1990) stated that esteem or the valuing of other cultures are most successfully acquired through affective rather than cognitive learning experiences. Heard (1990) stated that: "A multicultural teaching perspective does not result automatically as a consequence of intellectual engagement through textbooks, nor the acquisition of theories and research information. Rather, situational experiences in a teacher's training are essential to multicultural pedagogical skill, knowledge formation and attitudinal developments. Certain characteristics of multicultural interactive effectiveness suggest that critical direct contact in real multicultural learning situations is needed for the development of appropriated and effective teaching strategies in practice" (p. 304).

Conclusion

Multicultural education is the integration of different cultural backgrounds within our educational system. The growing cultural diversity in the United States has made multicultural education crucial. Teacher preparation institutes have before them the task of developing teachers that are trained in multicultural education.

One primary goal these institutions should contemplate is to produce individuals who can function within different cultural settings. This can be accomplished only through well developed programs that offer the preservice teacher the opportunity to work within culturally different settings and experience the cultural diversity that forms our educational system. Once teachers are culturally aware of their students' differences, equity and excellence will enhance our schools.

References

Baker, G. C. (1978). The role of the school in transmitting the culture of all learners in a free and democratic society. Educational Leadership, 36(2), 134-138.

Cordova, I. R., & Love, R. (1987). Multicultural education: Issues, concerns, and commitments. The North Central Association Quarterly, 61(3), 391-398.

Cushner, K., & Brislin, R. (1986). Bridging gaps: Cross-cultural training in teacher education. Journal of Teacher Education, 37(6), 23-25.

Fuller, M. L., & Adler, J. (1987). Multicultural education and the monocultural student: A case study. Action in Teacher Education, 9(3), 33-40.

Gooden, C. R., & Ligons, C. M. (1984). The preparation for equity in education. Texas Tech Journal of Education, 11(1), 31-43.

Grant, C. A. (1977). Education that is multicultural and P/CBTE: Discussion and recommendations for teacher education. Pluralism Education and the American Teacher: Issues and Case Studies (pp. 63-80). Washington, D. C.: American Association of Colleges for Teacher Education.

Grant, C. A. (1981). Education that is multicultural and teacher preparation: An examination from the perspective of preservice students. The Journal of Educational Research, 75(2), 95-101.

Heard, D. (1990). How do teachers identify multicultural and cross cultural pedagogical phenomena in and out of arts classroom? Educational Review, 42(3), 303-317.

McDaniel, C. O., McDaniel, N. C., & McDaniel, A. K. (1988). Transferability of multicultural education from training to practice. International Journal of Intercultural Relations, 12(1), 19-33.

Nickolai, M., & Davis, J. L. (1986). Inservice training of teachers in multicultural urban schools: A systematic model. Urban Education, 21(2), 169-179.

Rey, M. (1986). Training teachers in intercultural education? The work of the Council for Cultural Co-operation (1977-1983) Strasbourg: Council of Europe.

Sleeter, C. E., & Grant, C. A. (1987). An analysis of multicultural education in the United States. Harvard Educational Review, 57(4), 421-439.

Suzuki, B. H. (1984). Curriculum transformation for multicultural education. Education and Urban Society, 16(3), 294-322.

Professional Inquiry: A Strategy for Enhancing Teaching and Learning

Clarice Baker Big Back

When we talk of curriculum inquiry, into what are we inquiring? I share with others such as Goodlad (1979) and Eisner (1985), the notion that curriculum is a comprehensive body of content and activities that have both implicit and explicit consequences for learners, educators, families, and society. Curriculum includes the purposes and functions of schools and schooling and the ways in which schools and the delivery of education are organized. Curriculum includes not only the content of subject matters, but how knowledge is organized, how teachers teach, how learners learn, and how the whole is evaluated.

Are there moral and ethical imperatives that derive from the relationship between those who teach and those who are taught? If so, what are the implications for learning, teaching, and the education of educators? I know of no educational organizations-schools, districts, colleges of education, for example--where critical inquiry as I have described it is the norm, where professional roles and expectations are built around critical, reflective and collaborative practice, where, in short, critical inquiry is intrinsic to the culture of the organizational workplace. However, I have had enough experience with groups of educators working at the margins of a critical inquiry to suggest that the paradigm offers realistic guidelines for more authentic communication, decision-making, action-taking, and for evaluation by people who are genuinely and actively seeking a more democratic vision of schooling. (Sirotnik, 1991, p. 243-253).

This paper considers concepts and practices that promote professional inquiry into the curriculum of preparing teachers. The concept of professional inquiry discussed as part of this paper is what Jonas Soltis (1984) describes as: the empirical, the hermeneutic, and the critical.

As common intellectual properties, these traditions serve to define a continuum of teachers' professional development from a beginning point in teacher education through the highest levels of professional practices, as follows:

- An Empirical Perspective. Professional inquiry includes a focus on a careful study of actual classroom events and particular teaching methods or practices.
- A Hermeneutic Perspective. Hermeneutics involves the interpretive nature of knowledge.
- A Critical Perspective. In this perspective, the goal of inquiry is to expose existing power relationships in social situations and to address the misuses of power and the exercise of oppressive control over certain members or groups. (Holland, Clift, Veal, Johnson and McCarthy 1992, p. 173).

Teacher education is in need of a complete redesign if we are to accomplish school reform (Goodlad, 1991) that allows teachers to participate in their own professional development process in terms of empowerment for the teacher. Teacher education programs need to change in order that student teaching experiences can become capable of developing thoughtful, self-directed professionals who are prepared to meet the challenges of today's schools. Teachers are being expected to work with students who come from a cultural background that is different from their own and teachers are also being encouraged to participate in the decision making process in the schools where they work (Colton & Sparks-Langer, 1992).

The teacher of the future is seen as a "self-directed person who is intrinsically motivated to analyze a situation, set goals, plan and monitor actions, evaluate results, and reflect on his own professional thinking. As a part of this process, the teacher also considers the immediate and long-term social and ethical implications of his actions. Such a person explores a variety of possible actions--and their consequences--before choosing one. This person is not afraid to take risks and try new ideas. He is also

eager and willing to construct new knowledge by sharing ideas and questions with others as a means of growing professionally." (Colton & Sparks-Langer, 1992, p. 15)

According to Holland, Clift, Veal, Johnson, and McCarthy (1992), concepts and practices that promote professional inquiry do not have to begin from scratch. There are practices that exist that can be adapted to meet the needs of teachers and teacher education programs. Reflective Practice, Collaboration, Action Research, Clinical Supervision and Coaching are concepts and practices that should be implemented in teacher education programs.

"Action research is a process initiated by teachers and other educational practitioners in response to a practical problem confronting them" (McKernan, 1991, p. 312). Advocates of action research promote the teacher's role in exploring and analyzing their work; teachers are encouraged to view themselves as researchers and to think of the school as a place of inquiry. "Action research incorporates the empirical, hermeneutic, and critical perspectives on knowledge that have been described as characteristic of professional inquiry" (Holland, Clift, Veal, Johnson and McCarthy, 1992, p. 176). The United States, England and Australia have developed programs that use action research.

> These programs stress the value of developing habits of examining and critiquing practice early in teacher training. Noffke and Aeichner (1987) and other researchers have argued that such habits prepare students to enter teaching equipped with attitudes and skills that will assist them in their continuing learning and professional development. (Holland, et al., 1992, p. 176).

The research of Holland, et al. (1992), Sirotnik (1991), Goodlad (1991), and others, seem to be in agreement that action research is a means of self-inquiry and self development; and that teacher education programs working at a redesign in their approach in what they offer in terms of a curriculum for preservice teachers would benefit greatly by employing action research.

Research that looks at restructuring student teaching experiences views the supervisory experience of a student teacher as being similar to that of clinical supervision. "Supervisory practices ought to move the student teacher along a developmental continuum, starting with less thoughtful, self-directed and effective behavior and encouraging more reflection and more self-directed behavior" (Colton & Sparks-Langer, 1992, p. 166).

There are conflicting conceptions of clinical supervision. (Garman, Glickman, Hunter, & Haggerson, 1987). Glickman's model advocates developmental supervision, which consists of developmental approaches; they are labeled directive, collaborative and nondirective (Garman, et al., 1987). Glickman's developmental model offers the developmental continuum for student teachers as described by Colton & Sparks-Langer 1992). In her approach to clinical supervision, Garman gives credit to the landmark works of Cogan (1973) and Goldhammer (1969).

Garman adds to the traditional eight phase process because "the cycle of supervision is useful under limited conditions, but does not define the practice itself. ...The concepts, collegiality, collaboration, skilled service, and ethical conduct, have become imperatives that, when explicated, stake out the domain of the clinical approach to supervision" (Garman 1982, p. 35). The essential ingredient in terms of the professional mission of clinical supervision is personal empowerment for the teacher (Garman 1987). "At some point in a teacher's career, he/she must become a clinical supervisor of sorts because only the actors themselves can render the hermeneutic knowledge needed to understand teaching" (Garman 1990, p. 212).

Although clinical supervision has been used to supervise teachers in student teaching and inservice settings, it remains too often unrealized, for the following reasons:

Lacking training and skill to make clinical supervision a teacher-centered process, supervisors are judgmental and evaluative of teachers' practice.

> Universities and schools, forced to operate with limited supervisory personnel, find it impossible to allocate the time required for the frequent meetings and observations demanded by clinical supervision.
>
> The frequent misrepresentation of current teacher evaluation practices as "clinical supervision" causes teachers to view supervision as an unpleasant process serving only bureaucratic ends (Holland, et al., 1992, p. 177).

Therefore, unfortunately, clinical supervision's potential as a means of professional inquiry is lost to both the supervisor and teacher or preservice teacher.

Reflective coaching, derived from clinical supervision (Cogan, 1973; Goldhammer, 1969), has been taught to teacher participants as an attempt to encourage more inquisitive and thoughtful behavior from teachers about what they do in their classroom and perhaps just as important, why. Nolan and Hillkirk (1991) discussed as part of the first year outcomes of their project: "The most commonly noted change was that teachers were thinking more about their teaching and their student's learning" (p. 44). These findings demonstrate that reflective coaching did bring about improvement in teaching behavior. "Not only did teachers think more often and more deeply themselves, they expected the same of their students." (Nolan and Hillkirk, 1991, p. 43).

According to Holland, et al., (1992), coaching for preservice teachers provides the teacher with the opportunity to work with an experienced partner who offers guidance in performing, questioning, and interpreting the learning experience; all of which are important aspects of professional inquiry. "Coaches must be first-class faculty members...moreover, the process of coaching and learning experiences of the practicum must become central to the intellectual discourse of the school" (Schon, 1987, p. 171).

Using cooperative learning with preservice secondary education students has been shown to have positive results. Students, when asked to list the five things that

they learned that were of most benefit to them, listed cooperative learning among the most valuable experience. Other comments included:

> Great feeling of closeness and friendship with the team. I learned a lot more when we were in our groups. I learned to work with personality types that are different from mine and realize that it isn't that hard (Nattiv, Winitsky, and Drickey, 1991, p. 223).

There are preservice activities taking place that provide teachers with the opportunity to work collaboratively with other adults. At the University of Wisconsin-Madison, students and their cooperating teachers work together in joint research projects. At the University of Illinois, student teachers meet regularly with their cooperating teachers and faculty from the university to discuss various issues and problems of practice. "Such programs encourage students to regard collaboration as a familiar and useful part of their work in teaching" (Holland, et al., 1992, p. 176).

For the Native American, the transition from critical theory to critical practice as professional inquiry is essential for the survival of our nations. "Whose interests are, and are not, being served by the way things are?" (Sirotnik, 1991, p. 251). According to Indian Nations At Risk: An Educational Strategy for Action Report (1991), the interests of Native American students are not being met:

> Our schools have failed to nurture the intellectual development and academic performance of many Native children, as is evident from their high dropout rates and negative attitudes toward school.
>
> Our schools have discouraged the use of Native languages in the classroom, thereby contributing to a weakening of the Natives' resolve to retain and continue the development of their original languages and cultures (p. 1).

The purpose of this paper was to demonstrate through research the importance of establishing professional inquiry as an integral part of the curriculum for preservice teacher education programs. It is clear that professional inquiry leads to real changes

in teaching and learning, and that teachers, supervisors and university faculty must not only model professional reflective inquiry, they must also be the innovators for the restructuring of teacher education. The author would argue that these types of changes will improve the present status of education for the Native American. The Indian Nations At Risk Report (1991) found that current research supports the importance of educational renewal and restructuring models, and strategies for the improvement of teaching and learning.

References

Brandt, R. (1987). On cooperation in schools; A conversation with David and Roger Johnson. Educational Leadership, 11, 14-19.

Cogan, M. L. (1973). Clinical supervision. Boston: Houghton Mifflin.

Colton, A. B., Sparks-Langer, G. M. (1992). Restructuring student teaching experiences. In ASCD 1992 Yearbook. Supervision in transition (pp. 155-167). Alexandria, VA: Association for Supervision at Curriculum Development.

Garman, N. B. (1982). The clinical approach to supervision in T. J. Sergiovanni (Ed.), Supervision of teaching. Alexandria, VA: Association for Supervision and Curriculum Development.

Garman, N. B., Glickman, C. D., Hunter, M., & Haggerson, N. L. (1987). Conflicting conceptions of clinical supervision and the enhancement of professional growth and renewal: Point and counterpoint. Journal of Curriculum and Supervision, 2(2), 152-177.

Goldhammer, R. (1969). Clinical supervision: Special methods for the supervision of teachers. New York: Holt, Rinehart, and Winston.

Goldsberry, L. F. (1984A). The realities of clinical supervision. Educational Leadership. 4, 12-15.

Goldsberry, L. F. (1984B). Reality-really? A response to McFaul and Cooper. Educational Leadership, 7, 10.

Goodlad, J. (1991). Why we need a complete redesign of teacher education. Educational Leadership. 11, 4-10.

Hillkirk, K., & Nolan, J. F. (1991). Instructional improvement through shared ownership, inquiry, and reflective coaching. Journal of Staff Development, 12, 42-46.

Holland, P. E., Clift, R., Veal, M. L., Johnson, M., & McCarthy, J. (1992). Linking preservice and inservice supervision through professional inquiry, in C. D. Glickman (Ed.), Supervision in transition. Alexandria, VA: Association for Supervision and Curriculum Development.

McKernan, J. (1991). Action Inquiry: Studied enactment, in E. C. Short (Ed.), Forms of Curriculum Inquiry, pp. 309-323. State University of New York Press, Albany.

Nattiv, A., Winitzky, N., & Drickey, R. (1991). Using cooperative learning with preservice elementary and secondary education students. Journal of Teacher Education, 42, 216-224.

Sergiovanni, T. J., & Starratt, R. J. (1979). Supervision: Human perspectives. (2nd ed.). New York: McGraw-Hill, 1979.

Schon, D. (1987). Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Professions. San Francisco: Jossey-Bass.

Sirotnik, K. A. (1991). Critical inquiry: A paradigm for praxis, in E. C. Short (Ed.), Forms of Curriculum Inquiry, pp. 243-255. State University of New York Press, Albany.

U.S. Department of Education (1991). Final Report of the Indian Nations At Risk Task Force.

The Field Tests of a New Science Curriculum: The National Geographic Kids Network Experiences of a Teacher and His Students

Dick O'Grady

Background

Science teaching at the elementary level has remained static during the past 20 years with most teachers using a science text as the primary mode of instruction. Not since the 1960s have there been major changes in methods or materials. Following the launch of Sputnik in 1957, the U.S. Government made large amounts of money available to improve our math and science curriculums because of a fear that our children lagged behind the children of the Soviet Union in these subjects.

As a result, a variety of new programs came on the scene to replace the teacher-centered, textbook oriented programs which encouraged memorization of science facts. The new programs emphasized the processes of science and consisted of "hands-on" activities designed for students to make their own discoveries. The three most popular--funded by the National Science Foundation (NSF)--were Elementary Science Study (ESS), The Science Curriculum Improvement Study (SCIS), and Science-A Process Approach (SAPA). All three programs came in kits which contained all of the materials that were needed for each unit of study.

The NSF programs enjoyed a short period of popularity and then seemed to fade from the scene. Wolfinger (1984) estimates that SCIS, the most popular of the three programs, is used in less than 4 percent of schools today. While the three programs continue in decline, research (Shymansky, 1989) indicates that students taught with ESS, SCIS, and SAPA significantly outperform students in traditional, textbook-based programs on achievement, attitudes, and process skills. Nevertheless, teachers have not been persuaded to use the programs to supplement their text-based science lessons.

During the 1980s, beginning with the publication of A Nation at Risk: The Imperative for Educational Reform (National Commission on Excellence in Education,

1983), there has been a new call for reform in American education, particularly in the subjects of math, science and technology.

Teachers of science, some critics argue, spend too much time lecturing and, therefore, ignore teaching and processes of science that allow students to experiment, investigate, and make discoveries for themselves and thereby develop an interest in science.

As a result of today's reform movement in education, several programs are being developed in science, programs that combine present day technology with learning science. This paper is a report of a new science curriculum for the elementary school and is written from the perspective of one who was involved with its development and testing.

During the past three years, I have been involved in the field testing of a new science curriculum--the National Geographic Kids Network. The Kids Network is a telecommunication-based science program for students in grades four through six. The curriculum consists of a series of units that focus on environmental issues such as acid rain and water quality. Students conduct experiments and collect data in their own communities. Using computers and telecommunication, they share their findings with students in the United States, Canada, and other countries.

The Kids Network is a National Science Foundation-funded project which represents a partnership between Technical Education Research Centers (TERC) in Cambridge, MA and the National Geographic Society (NGS) in Washington, D.C. TERC is the developer of the software and the curriculum. NGS publishes and distributes the final product.

In a water quality unit, my class discovered that we had unacceptable levels of lead in our school's drinking water. After learning of the correlation between the pH of water and its corrosive effects on head solder in water pipes, our study became a community issue by involving the city's water utilities director working with the student to help solve the problem. So much interest was generated by this study that a film

crew from the British Broadcasting Company (BBC) in London, England, came to our school to film students doing experiments in the classroom and at the municipal water treatment plant.

In another unit, my students designed an investigation to determine how much food waste was generated in the school's cafeteria. After testing their research instrument, they sent it (from the classroom computer) to seven other schools across the United States. Several school replicated the study and sent back their findings. By designing charts and graphs on the computer, students analyzed all the schools' data and found significant results. These results have recently been published in Hands On!, (Spring 1990) by Candace Julyan, Project Director for the NGS Kids Network at Technical Education Research Centers. An article entitled "Teaching with Trash," describing aspects of the food waste investigation, was published in Instructor (October 1990) magazine.

In this paper, I will describe the acid rain field test, including samples of electronic mail exchanges. The acid rain unit has been published by the National Geographic Society and is currently being used in schools throughout the country.

Acid Rain Field Test - 1988

In Wisconsin, on a cold winter day in February, one of my students wrote the following letter:

> "Hello to Oceanside, California. How are you doing? Everything is going fine here. My name is Melissa and I'm from Wausau, Wisconsin. I like Wisconsin because there is lots of snow and you can ski, sled, and make snow forts. I think all those things are fun!!! Good bye for now and hope to hear from you soon."

The next morning she received the following reply:

> "Hello to Melissa and her classmates in Wausau, Wisconsin!!! We here in Oceanside were real excited to get a letter from you. The weather has been gorgeous and sunny throughout February in Oceanside...in fact last weekend, many of us went to the beach. Do you have any snow there? At least 10 student in our class had never seen snow.
>
> Bye!"

The students had never met. They lived great distances apart (Wisconsin and California). The climatic conditions of each student's geographical location was vastly different (On the day Melissa wrote her letter it was -5 degrees F. in Wisconsin and it was 70 plus degrees in California). What made this special was that the students had written the letters on their classroom computers and sent them to each other electronically through telephone lines.

They and their classmates were working together with other classrooms throughout the United States in field testing a new telecommunication-based science curriculum called The National Geographic Kids Network. The curriculum emphasizes a process approach to science teaching in which students make predictions, do experiments, collect and analyze data, and share their findings with other schools. A professional scientist works with the students on the network to help them examine the significance of the data.

Dr. John Miller, Deputy Director of the Air Resources Laboratory at the U.S. Department of Commerce, was the network scientist for our acid rain unit. He responded by computer to my students' findings on the pH values of precipitation in Wisconsin:

> "To the 25 Scientists at the Riverview School,
>
> Thanks for your excellent report! It is interesting that the snow is more acidic than the rain. However, the values look like just what one would expect for the Wisconsin area. I hope to compare your data with data from the U.S. National Network.
>
> Sounds like you really enjoyed the project. Please write if you have questions."

My students joined 130 other classrooms across America in collecting and testing rain samples on their school playgrounds. All of the classrooms followed specific directions in building rain collectors and collected pH values of the samples during the same three week period. Each classroom worked in groups of four or five students in collecting and testing as many rain samples as possible. At the end of the three week test period, each classroom reported the highest, lowest, and most common values for

each week by entering the data into the computer and transmitting it to a central computer. There it was compiled into national data and returned the following day in the form of charts and maps for students to study. Students were able to see their own data displayed on computer maps along with data from all the other schools.

In analyzing the computer maps, students were able to see the results of an enormous collaborative effort of which each of them played a major role. They were able to decipher patterns in the data that was colorfully displayed on their U.S. computer maps.

In a computer letter to the students, Dr. Miller writes:

"To the Kids of the KIDS NETWORK:

> In the last few days, I have received all of your pH values via the computer. Also I was able to get data from the National Trends Network (NTN) which is the official acid rain network in the United States. The first review of the two sets show that they compare very well. The general features show low pH (high acidity) in the Northeast with spotty lows elsewhere. Also where the values are high (low acidity) in the Midwest, both networks show this.

Please accept my congratulations on a job well done."

Previous to the collection of rain samples, students did many other activities related to the study of acid rain. First, they wrote letters to each other describing their schools and communities and reporting their global addresses (longitude and latitude). Placing the locations of other participating network schools on wall maps and studying their community description letters became important when students had to make predictions of pH values of different regions of the United States. They based their predictions on such things as population, kinds and numbers of industries, and climatic wind patterns.

Students did experiments to learn the effects of acidic and non-acidic solutions on living and non-living things. They learned how to read the pH scale, how to make accurate pH measurement of everyday solutions found in their own homes, and how to keep accurate records of their findings.

The class also took a field trip to an electrical (coal burning) power plant and learned about the efforts of large power plants to limit the amounts of sulfur dioxide emissions into the air. They took surveys of how many car trips their parents made daily to estimate how much nitrogen oxide is emitted into the atmosphere from automobiles.

During this eleven week field test, students made charts and graphs of local and national data and collected information on the topic of acid rain from newspapers, magazines and books. They also kept up an exchange of electronic mail:

"To Wausau, WI

We got some rain last week. Our most common was 5.5, our lowest was 4.7 and our highest was 6.0. We are testing the effects of acid on living things. Please write back.

From Petaluma, CA"

"To Petaluma, CA

In our pH testing so far, these are the total results of all team pH team so far: 17 at pH 5.0, 3 at pH 4.5, and 4 at 5.5.

Did you get our letter on the power plant tour? Each week they get two 110 freight car trains that bring coal! The plant uses 40-50 million lbs. of coal per week.

Hope to hear from you soon!

From Wausau, WI"

"To Kathy in Wausau, WI

Dear Kathy,

During our vacation it mostly rained all the time. It was the best time to collect rain. Our reading for the first storm was 5.5. The second storm we had a reading of 4.5. The third storm was 5.0.

I'm from Nashua and I'm 11 years old. I was born in Cleveland, Ohio. I like to travel. I also like to read.

I would like to know where you are located, plus more about your town.

From your friend Christine in Nashua, NH"

Near the end of the unit, students were asked to look at the social significance of their data by examining two different positions. A decision made to reduce (take

action now) acid rain could effect jobs, therefore, a student's father could lose his job if the factory at which he worked was closed because of high sulphur dioxide emissions. A decision made to further study (need more information) at the acid rain problem could seriously reduce fish populations in lakes and streams, and further damage trees in forests. After discussion and debate, each class tallied their votes, entered it in their computers and sent it to the network. At the end of the unit, each student put together a book of all the letters, charts, graphs, and other information collected during the unit and made an assessment of what they learned. They also developed new questions from the results of the study. Most of all, the students were proud of their accomplishments and felt what they did was important.

A last computer letter of the acid rain unit written by Shawn represents the feelings of all:

> "This is going to be my last letter. I'd just like to say how much I enjoyed the acid rain unit. I enjoyed the pH testing, the experiments and all the other fun stuff we did in this unit.
>
> Good-bye friends!"

Conclusion

As a result of the successful field tests, five units are presently available to school districts from the National Geographic Society. Each unit is "on-line" several times a year for eight week periods.

A strength of the Kids Network is its flexibility. For example, the units can easily be coordinated with a textbook-based curriculum by reinforcing text material or the units can be the primary focus for science and be supplemented with text, video, or other materials in an expanded exploration for a year long study.

The most unique feature of the Kids Network is its integrated software package which allows students to write and receive letters, enter data, share data and letters via telecommunications, and create tables, maps, and graphs. Students also have the capability to analyze data on maps by locating cities, states and countries. This

includes the ability to "zoom in" on the maps to offer a very detailed level of locations, or to "zoom out" to reveal regions, continents, and global scales.

The most interesting feature of the program is that the topics investigated are relevant for today's world. The topics focus on environmental issues that are both current and important. The idea that students can collect data that is both important and measurable is central to the curriculum.

As a result of its success and its growing popularity in school systems around the country, TERC has recently submitted a new proposal to the NSF to involve undergraduate preservice teachers in learning about the Kids Network through university courses. Penn State was selected as one of six universities across America to receive support to design a plan to implement the program. The Elementary Education program is planning the process by which the Kids Network will be incorporated into Science Education for future elementary teachers.

References

American Association for the Advancement of Science. (1985). Project 2061: Education for a changing future. New York: Carnegie Corporation, Andrew W. Mellon Foundation.

Brandt, Ronald S. (1988). Content of the Curriculum. Association for Supervision and Curriculum Development.

Goodlad, J. I. (1983). A Place Called School: Prospects for the Future. St. Louis: McGraw Hill.

Julyan, Candace L. (1990). Lunchroom garbage: Findings from student-scientists. Hands On!, 13(1), 1-4.

Klein, Frances M. (1989). Curriculum reform in the elementary school: Creating your own agenda. Teachers College Press.

Koballa, T. R., Jr. (1986). Persuading teachers to re-examine the innovative elementary science programs of yesterday: The effect of anecdotal versus data-summary communications. Journal of Research in Science Teaching, 23(5), 437-449.

Mecklenburger, James A. (1990). Education technology is not enough. Phi Delta Kappan, October, 104-108.

National Commission on Excellence in Education. (1983). A nation at risk: The imperative for educational reform. Washington, D.C.: U.S.

Novelli, J. (1990). Teaching with trash. Instructor. October 62-75.

Shymansky, J. A. (1989). What research says about ESS, SCIS, and SAPA. Science and Children, 26(7), 33-35.

Shymansky, J. A., Kyle, W. C., Jr. & Alport, J. M. (1982). How effective were the hands-on science programs of yesterday? Science and Children, 20, 14-15.

Technical Education Research Centers. (1989). Extending the National Geographic Kids Network to the Middle Grades: A NSF Proposal. p.4.

Wolfinger, D. M. (1984). Teaching Science in the Elementary School. Boston: Little, Brown and Company.

HIV/AIDS Prevention in Teacher Education

Lydia Blasini

Introduction

AIDS education has emerged as a response to the most difficult epidemic of the century. The disease, acquired immunodeficiency syndrome (AIDS), is caused by the virus called Human Immunodeficiency Virus or HIV. The Department of Health and Human Services (1990), reports that 280,000 new cases of AIDS are expected in 1991, with the rate doubling each year. Recent studies indicate that up to 55% of all teenagers have had sex by the time they graduate from high school (Black & Jones, 1989), and 61% have used drugs before they graduate (U.S. Department of Education, 1987). Adolescents are a high risk group who need education regarding HIV/AIDS. Students need to know about the disease and the behaviors that place them at risk. Trained teachers can provide adequate information about how to control the spread of HIV/AIDS. Individuals should be able to modify their behaviors and protect themselves from infection.

At this time, an effective vaccine or drug for the cure of AIDS has not been discovered. Education appears to be the appropriate alternative for prevention of the disease. It is precisely through health (AIDS) education that people at risk may be informed. A series of well defined educative strategies are required to make HIV/AIDS education effective.

HIV/AIDS education can be developed through intensive in-service training for all teachers. Also, special workshops focusing on the dissemination of information, and the clarification of fears and misconceptions could be prepared for all members of the school community. Bias and prejudice to HIV/AIDS should be combated by encouraging changes in behaviors. Educators are capable of gathering and delivering the information and skills necessary to stop the spread of AIDS.

The purpose of this paper is to review the literature regarding the development of an HIV/AIDS prevention program in teacher education. The paper is divided into three sections. The first section presents facts concerning the HIV/AIDS disease. The second presents data regarding the prevention of HIV/AIDS. Section three presents the significance of HIV/AIDS prevention in teacher education. Conclusions and recommendations are stated at the end of the paper.

What is HIV/AIDS?

The purpose of this section is to present facts regarding the HIV/AIDS disease. In a comprehensive overview of the HIV and AIDS problem Strouse (1990) says that AIDS is a condition caused by the "human immunodeficiency virus" or HIV. A virus is a small germ that can cause disease. If HIV enters the bloodstream, the individual becomes infected with HIV. HIV damages the immune system and eventually debilitates the body's ability to fight disease. A special blood test is used to detect HIV infection.

A person who is infected can infect others, even if no symptoms are present. The problem is that no one can tell just by looking at someone whether he or she is infected with HIV. An infected person can appear completely healthy even when no symptoms are visible; however, any one infected with HIV should be under a doctor's care.

People infected with HIV can develop many health problems, which include extreme weight loss, severe pneumonia, a form of cancer and damage to the nervous system. These illnesses are signs of the onset of AIDS and in some people, they may appear within a year or two. Others may stay healthy for as long as 10 or more years before symptoms begin to appear. No one will develop AIDS unless he or she has been infected with HIV. Yarber (1987a) suggests prevention of HIV infection as a means of prevention of AIDS.

Black & Jones (1989) state that 14,707,000 adolescents (ages 14-17) in the United States are at risk of HIV infection due to their experimentation with sex and drugs. The U.S. Department of Education (1987) estimates that about 61% of U.S. high school seniors have experimented with drugs before graduation. Some of these drugs are

injected. The virus that causes AIDS can be spread through the sharing of intravenous (IV) drug needles or syringes.

Tatum (1988) reports that young people are increasingly at high risk of contracting HIV and becoming ill with AIDS. According to Fraser (1989) by September 1988, 1,500 children younger than 20 had been diagnosed with AIDS and half of them were dead by 1990. One-fifth of the people infected with AIDS were in their 20's, many of whom no doubt were infected with the virus as teenagers. Many of these young adults were infected by sexual behaviors or I.V. drug use. The average age for a girl in the United States to have sexual intercourse for the first time was 16 and for boys the average was 15.5.

Newschwander (1987) states that within five years, AIDS will be the leading cause of death among people ages 20-29. Many of these prospective "AIDS candidates" are now students in our classrooms and it must be our responsibility to help them save their lives. Ballard & Glascoff (1990) report that as of April 1990, 2,692 U.S. children and adolescents had been diagnosed with AIDS. It is estimated that one in three teachers will instruct a child with AIDS within the next five years. People with AIDS will die of it since there is not a vaccine to prevent the HIV infection and there is not a cure for it yet. AIDS is fatal and irreversible; therefore prevention and education are the only hope we have to combat the spread of HIV/AIDS.

To prevent HIV infection, high risk behaviors should be stopped. AIDS is linked closely to many worldwide social problems such as poverty, homelessness, premature sexual activity, and drug use. The solution of these problems is not easy; it is essential to learn new ways of modifying risky behavioral manifestations.

HIV/AIDS Prevention

This section will present data and literature pertaining to HIV/AIDS prevention. Ornstein (1988) reports that it is essential that students be educated about AIDS, due to the fact that these youngsters, by virtue of age and sexual activity, will become proportionately more susceptible to the acquisition of AIDS. Education has to begin in

early elementary grades, so that children can learn how to protect themselves from exposure to the AIDS virus. "School must play a major role in helping young people learn about and learn how to deal with AIDS" (Keough & Seaton, 1989, p. 361).

An increasing number of legal mandates are influencing the daily operations of schools (Reynolds, 1990). Many state leaders have already demonstrated courage by taking action to require instruction on HIV and AIDS (Johnson, 1988). Schumacher (1989) suggests that strong state policies and adequate funds are essential steps for assuring that all students receive effective HIV education statewide in order to protect themselves from this fatal disease.

Strouse & Phillips (1987) state that the responsible position for educators to take is to become leaders in disseminating accurate information about AIDS. It is very important to discuss with students alternative life styles, safe sexual practices, and implications of drug abuse. These topics, however, are not always easily discussed. Professionals must be willing to overcome their own biases and misconceptions before attempting to educate youngsters. They cannot close their eyes to the reality of AIDS and that adolescents will experiment sexually and pharmacologically, two of the most common ways of getting infected with AIDS (Ward, 1988).

Dorman & Brey (1990) suggest that AIDS courses should include bio-medical aspects of the disease as well as HIV testing and counseling. Other topics that should be incorporated in the curriculum include: the impact of AIDS on public health and medicine; the economic impact of AIDS; AIDS and minorities; and governmental responses to AIDS.

Preparation of teachers to teach human sexuality education is imperative due to the multitude of adolescent health risks associated with AIDS, teen-age pregnancy and sexually transmitted diseases. A well developed sex education curriculum can help teenagers make thoughtful, informed decisions about sexual behavior (Levenson-Gingiss & Hamilton, 1989).

Greenberg (1989) suggests that before working with students in the area of sexuality, educators should consider two important areas in order to feel comfortable about sex. These two areas are language and behavior (Williams, 1987). The language of sex can promote either comfortable or uncomfortable feelings to the person who is teaching sex education. Teachers of sex education need to be able to use the language of sex easily and naturally, especially in the presence of young students (Rowling, 1987).

Yarber (1987b) states that by identifying the actual behaviors of student following sex and reproduction education, teachers can determine the actual instructional content and learning activities necessary to lead to specific behavioral results. Education about sexually transmitted diseases is more likely to be achieved if knowledge, attitudes and behaviors are all addressed during instruction.

Some adolescents believe that young people receive an inadequate amount of information regarding sexuality and reproduction. More up to date information is needed on the quality and content of parental and school-based sex education. The spread of AIDS has added a new dimension to adolescents' needs for education regarding sexuality (Nettles and Scott-Jones, 1987).

Sex education still begins at home but parent-child communication needs significant improvement (Wattleton, 1988). Teenagers affirm that school is their third most important source of sexual knowledge after parents and peers. However, only 35 percent of these teenagers have sexuality education courses that could be called comprehensive. Well trained teachers are the best defenses against the continued spread of HIV/AIDS (Fetter, 1989).

According to Forrest, Kenney, & Silverman (1989), the majority of sex education teachers are covering special topics which can help students avoid risky sexual behaviors. Risky sexual behaviors are those that can allow students to acquire AIDS or other sexually transmitted diseases, and become pregnant. Most of the messages teachers want to give to their students relate to the responsibilities of sexual

relationships and parenthood. Forrest, Kenney, and Silverman (1989) reiterate the importance of abstinence and ways of resisting pressures to become sexually active.

Kenney & Orr (1984) state that parents have the primary responsibility for talking to their children about sex-related topics. Yet parents support sex education in the schools as a part of the curriculum. Teachers, like parents, have limited formal sexuality education to prepare them to impart such information to their pupils. It is significant to include parents in periodic staff development to improve their knowledge about sexuality (Smith, Flaherty, Webb & Mumford, 1984).

To summarize schools have the commitment to provide all students with education on how to prevent HIV/AIDS disease. Universities as the center for higher education have the responsibility of formulating policies regarding teaching the prevention of HIV/AIDS. Colleges of Education must evaluate the teacher education programs to determine where HIV/AIDS education can be taught. This evaluation must consider the focus areas of the prospective teachers to determine which HIV/AIDS information will be discussed with them. The information the prospective teachers will receive is the same as classroom teachers receive in their schools during HIV/AIDS training. There will be a difference in the activities and specific learning strategies used in development of HIV/AIDS curriculum in the classroom. The difference between prospective teachers and inservice teachers is the experience the latter group has in attuning the available material to fit the students' needs. Experienced teachers should receive more specific inservice training, including alternative strategies to be used in the classroom according to the specific needs of their students and their focus area. Training also had a positive effect on students' learning and how closely teachers follow the activities as instructed in the teachers' guides.

HIV/AIDS Teacher Education

This section discusses the importance of HIV/AIDS prevention in teacher education. A series of well defined educative strategies are required to make HIV/AIDS education effective (Fetter, 1989). When teachers receive adequate training and

administrative support, they will be able to acquire the knowledge and skills required to implement innovative educational practices in their classroom (Stein & Wang, 1989).

Teachers must be prepared and feel comfortable with the sensitive nature of the AIDS topic. In order to assess teachers' degree of comfort, Berlin & Jensen (1989) recommend a series of surveys and pretests before engaging in any type of teacher training program. In-service training must then be conducted to provide specific information. Through adequate inservice training, teachers can gain the expertise and self-confidence necessary to deal with the factual information concerning AIDS as well as the controversial psychosocial issues that surround the disease (Girvan & Farrell, 1989).

Teaching is the only profession that provides an opportunity to enhance the society by helping students (Goodlad, 1990). According to Allensorth & Wolford (1989) educators need to focus on the quality of the AIDS instruction students receive. Quality AIDS instruction is grounded in fundamental activities that include cognitive, affective, and behavioral domains. Educators who teach AIDS education should consider all the factors that will influence learning.

Teacher preparation is very important for developing a good AIDS educational program. In institutions of higher education, Colleges of Education must provide preservice instruction about HIV/AIDS education and how to manage effectively classroom situations involving HIV infected children. By preparing future teachers to deal effectively with school related HIV/AIDS issues, professional preparation programs have the potential to contribute to the prevention of this fatal disease (Ballard, White & Glascoff, 1990). Raper & Aldridge (1988) state that HIV/AIDS education must be incorporated into teacher education programs. This could be possible through classes on Exceptional Children, Science, Health and First Aid.

One goal of teacher education is to prepare prospective teachers to engage in intellectual dialogue as they begin their work and to provide a basis for continued learning (Reynolds, 1990). Universities have the responsibility to train future

professionals about the challenge presented by HIV infection. Schools can play an important role in informing communities how to prevent the spread of HIV/AIDS infection. Additionally they can help students become aware of different issues in their community and assume a responsible position about it. Students must have the practical knowledge that will prevent them from acquiring and spreading HIV/AIDS (Silin, 1987).

In summary, studies have shown that the majority of all teachers believe it is appropriate for schools to teach sex education and/or HIV/AIDS education. A well planned and implemented HIV/AIDS and/or sex education program is a necessity in all modern schools. For education about AIDS to be effective, both school and community need to deliver consistent and mutually supporting messages to young people. These messages should be delivered through cognitive, affective, and practical learning activities. Also, these messages must be addressed to teachers, parents and students.

Conclusions and Recommendations

HIV/AIDS education in the classroom is a key component of national efforts to promote preventive behaviors. The most important obstacle to HIV/AIDS education is the difficulty in distinguishing a public health problem from a moral problem. HIV/AIDS is a social problem and simply providing young people with facts is not enough. Teenagers need the opportunity to clarify their values, practices, decision-making processes and communication skills. Teenagers also need to learn to resist peer pressure related to sex and drug use.

Teachers need accurate information to make appropriate decisions concerning children with HIV/AIDS. Dealing with HIV/AIDS and children is an issue that has already arrived. What will be the teacher's attitude when a child with HIV/AIDS reaches his or her classroom? This question is one reason for HIV/AIDS prevention education being incorporated into teacher preparation programs.

The use of HIV/AIDS information in school should be determined by the local district in accord with community and parental values. Parental involvement is significant for bringing continuity and meaning to what teachers teach in the classroom.

HIV/AIDS education ideally should be integrated into existing comprehensive health or sexual education programs. The content of HIV/AIDS prevention should be discussed in the following health unit topics: self-esteem, family and personal values, decision-making process, communication, drug abuse prevention, sexually transmitted diseases (STDs), and peer pressure.

The nation's system of public and private schools and universities has a significant role to play to educate people about HIV/AIDS prevention. The different educational institutions have the alternative to create HIV/AIDS networks with agencies such as the U.S. Department of Health and Human Services, the Center for Disease Control, the National Association of State Boards of Education, the Red Cross and others that extend the use of their resources. These agencies have the funding, materials, guidelines, time, and personnel to be used by schools and universities for designing and implementing effective HIV/AIDS prevention programs.

The principal responsibility of educators is to understand the district guidelines, policies, and state mandates related to teaching HIV/AIDS prevention. Teacher education must deal with all the social changes happening in society that have immediate impact on eduction. The AIDS epidemic gives students, teachers, parents and all the community the chance to know about sexuality, drugs and AIDS, and the right to protect one's health. HIV/AIDS education offers the base for prevention of HIV/AIDS in years to come. Since no vaccination or cure may be found immediately for HIV, prevention is primarily putting accurate and honest information regarding HIV/AIDS in the hands of everyone.

References

Allensorth, D. M. & Wolford, S. C. (1989). A theoretical approach to school-based HIV prevention. Journal of School Health, 59(2), 59-65.

Ballard, D. J., White, D. M. & Glascoff, M. A. (1990). AIDS/HIV education for preservice elementary teachers. Journal of School Health, 60(6), 262-265.

Berlin, B. & Jensen, K. (1989). Changing teachers. Education and Urban Society, 22(1), 115-120.

Black, J. L. & Jones, L. H. (1989). HIV infection: Educational and policies for school personnel. Journal of School Health, 58(8), 317-321.

Dorman, S. M. & Brey, R. A. (1990). A professional preparation course on AIDS/HIV infection. Journal of School Health, 60(6), 266-269.

Fetter, M. P. (1989). AIDS education: Every Teacher's responsibility. Journal of the Association for Childhood Education International, 65(3), 150-152.

Forrest, J. & Silverman, J. (1989). What public school teachers teach about preventing pregnancy, AIDS and sexually transmitted disease. Family Planning Perspectives, 21(2), 65-72.

Forrest, J., Kenney, A. M. & Silverman, J. (1989). Risk and responsibility teaching sex education in America's schools today. New York: The Alan Guttmacher Institute.

Fraser, K. (1989). Someone at school has AIDS: A guide to developing policies for students and school staff members who are infected with HIV Alexandria, VA: National Association of State Boards of Education.

Freudenberg, N. (1989). Social and political obstacles to AIDS education. S.I.E.C.U.S. Report, 17(16), 1-6.

Girvan, J. T. & Farrell, L. D. (1989). Developing an effective half-day secondary school inservice on AIDS. The Clearing House, 62(1), 381-383.

Goodlad, J. I. (1990). Teachers for our nation's schools. San Francisco, CA: Jossey-Bass Publishers.

Greenberg, J. S. (1989). Preparing teachers for sexuality education. Theory into Practice, 28(3), 227-231.

Johnson, K. (1988). Teens and AIDS: Opportunities for prevention. Washington, D.C.: Adolescent Pregnancy Prevention Clearing House.

Kenney, A. M. & Orr, T. M. (1984). Sex education: An overview of current programs, policies and research. Phi Delta Kappan, 65(7), 491-496.

Keough, K. E. & Seaton, G. (1989). Superintendent's view on AIDS: A national survey. Phi Delta Kappan, 69(5), 358-365.

Levenson-Gingiss, P. & Hamilton, R. (1989). Evaluation of training effects on teacher attitudes and concerns prior to implementing a human sexuality education program. Journal of School Health, 59(4), 156-160.

Levenson-Gingiss, P. & Hamilton, R. (1989). Teacher perspective after implementing a human sexuality education program. Journal of School Health, 59(10), 427-431.

Nettles, M. S. & Scott-Jones, D. (1987). The role of sexuality and sex equity in the education of minority adolescents. Peabody Journal of Education, 64(4), 183-197.

Newschwander, G. (1987). Update on AIDS for teachers and policy makers. Educational Horizons, 65(3), 110-113.

Ornstein, A. C. (1988). AIDS: A challenge to the education community. The Clearing House, 62(3), 135-136.

Raper, J. & Aldridge J. (1988). What every teacher should know about...AIDS. Washington, D.C.: Association for Childhood Education International.

Reynolds, M. (1990). Knowledge base for the beginning teacher. New York: Pergamon Press.

Rowling, L. (1987). Reading anxiety about teaching a human sexuality program. Health Education, 18(1), 52.

Schumacher, M. (1989). HIV/AIDS education survey: Profiles of state policy actions. Alexandria, VA: National Association of State Boards of Education.

Silin, J. G. (1987). The language of AIDS: Public fears, pedagogical responsibilities. Teachers College Record, 89(1), 3-17.

Smith, P. B., Flaherty, C., Webb, L. J. & Mumford D. M. (1984). The long-term effects of human sexuality training programs for public school teachers. Journal of School Health, 54(4), 157-159.

Stein, M. & Wang, M. (1989). Teacher development and school improvement: The process of teacher change. Teaching and Teacher Education, 4(2), 171-187.

Strouse, J. H. (1990). School district AIDS policies. Urban Education, 25(1), 81-88.

Strouse, J. H. & Phillips, J. P. (1987). Teaching about AIDS: A challenge to educators. Educational Leadership, 44(7), 76-80.

Tatum, M. L. (1988). The AIDS challenge: Controversial issues in the classroom. Family Life Educators, 7(1), 15-19.

U.S. Department of Health and Human Services (1990). HIV/AIDS Surveillance. Atlanta, GA. Public Health Service, Center for Disease Control.

Ward, L. (1988). Drama: An effective way to educate about AIDS. The Journal of Contemporary Social Work, 69(6), 393-399.

Wattleton, F. (1988). American teens: Sexually active, sexually illiterate. Curriculum Review, 27(3), 16-17.

Williams J. (1987). Education and behavior change. Washington, D. C.: National Education Association.

Yarber, W. L. (1987a). AIDS education in school. Sex Education in School, 9(1), 1-3.

Yarber, W. L. (1987b). Sexually transmitted diseases and young adults. Educational Horizons, 65(3), 106-109.

The Significance of To Open Minds by Howard Gardner for Developmentally Appropriate Practice in Early Childhood Education

Celeste A. Lasater

Introduction

My purpose in selecting this topic was to explore a question I recently learned that I share with Howard Gardner. In his case, the posing of this question, and ultimately the writing of the book, To Open Minds, came about because of several opportunities to study and observe education in China, where his basic assumptions about education and human nature were challenged. In my case, the question came out of childhood experiences of living and being educated in China and Japan. Because his observations and conclusions parallel my personal and professional experiences, Gardner's intellectual involvement with this issue is personally and professionally exciting to me.

Gardner's generalized observation in China was that the Chinese educational system has specialized in teaching the basics to the exclusion of creativity. Conversely, in the West, our educational systems have emphasized creativity in education and under-stressed basic skills. The question is no doubt one that any Western educator would sooner or later also ask after on-site study of the Chinese, Japanese or Korean school systems. Can an educational curriculum be developed which could effectively teach basic skills as well as develop individual creativity without sacrificing one for the other? If so, a more specific question for the early childhood educator (ECE) would be: what should be the balance of skills and creativity in the curriculum at the preschool level?

Values

This paper will discuss the significance of Gardner's theory of multiple intelligence and recent revisions in his conceptualizations of education to developmentally appropriate practice (DAP) in Early Childhood Education (ECE).

Before turning to that discussion it is necessary to make a few initial points about DAP, values and culture. One underlying assumption to the ongoing discussion about DAP is that we will find a core of values upon which we can "mostly" agree. As communication shrinks the world and we learn firsthand from the educational experiments of other cultures such as China, we may as Gardner and I suggest, have to reconsider the basic values of our Western approach to learning and search for new ways to integrate the best from East and West in our educational schemata. Consensus may become even harder because of the ever widening lens.

Gardner, well established at Harvard, has resources he can command to contribute to cross-cultural understanding about educational orientations. Hopefully he will continue to make this a funded priority and we can thereby continue to learn from his analysis and research. My concern is that there are not enough ECE educators in America who have experienced the more structured oriental educational experience first-hand, to be converted to an understanding of what young children are capable of accomplishing with "rigorous" instruction in basic skills. "Seeing is believing." Thus, before the field of ECE will seriously consider adapting or adopting "foreign" concepts of educating the young child, more exposure to other types of educational alternatives may be necessary. Books alone will not be sufficient.

Some may consider it premature to talk about adding "Chinese concepts," "Japanese concepts" or "Italian concepts" to our educational processes (DAP) before we have fully agreed upon what the "American concepts" are going to be. I would suggest that rather than focusing so intently on what the "American concepts" are, i.e. cultural assumptions, it would be more valuable to identify the "child concepts." In other words, the questions should be: what do different cultural educational experiences tell us about the nature of the child? And what does cognitive research tell us about the mind of the child and neurological studies about the brain of the child? Are children universally the same internally or are there distinct cultural differences?

Cultural Definitions of Education

Any two cultures will have very different cultural definitions of what education means, based on their own values. In fact, conjectures Gardner, there may be as many views about human potential as there are discrete societies. These essential social values indicate the type of educational system developed to create and reinforce those values. In the West, we place a high premium on independence, understanding, critical and analytical thinking. In the East the primary value is the performance of roles and rituals. There is a down side to each of these polarities. The negative side of too much creativity is the absence of skills, disorganization and finally chaos. The negative side of ritualized rote performance is a stagnant society. Society has a stake in exposing all students to a core of basic ideas, principles and facts. But conflicts among educators, parents and students arise over what should compose that core of ideas in a pluralistic society like the U. S. Consensus is difficult. In China, only consensus is allowed.

Our respective educational systems reflect judgments about criteria and models which will produce the valued end product guarding against the excesses of too much of a "good" thing. Presumably, if a nation changes its social values its educational systems will come to reflect that change as well.

Science must determine if children of different cultures are developmentally different. If so, then we must support differing educational approaches, such as magnet schools representing highly defined and individualized value systems which would cater to the ethnic and social values of particular elements of our pluralistic society. If developmental differences are not found then we can make universal recommendations.

In a real sense, this is what the discussion of multicultural education boils down to at the present time. How can we best synthesize varying cultural values with child development expertise and translate these into program. Having to accommodate the wide variety of cultures and ethnic groups in education is often thought to be as important as accommodating the developmental needs of children regardless of their

ethnocultural backgrounds. Where these are in conflict; the "child concepts" should prevail (providing they are discovered to be universal) because these can be said to be "true developmental needs" as opposed to societal needs. If it can be proven that all children have the same "raw potential" the world around, then the discussion will radically change.

The two most significant statements Gardner makes in this book with potentially far reaching connotations for the field of ECE are: (1) that "the young child is capable of both excellent imitation and ferreting out structure on her own; which option she follows is determined by the culture" (Gardner, 1990, p. 304) and (2) "the human nervous system is extremely flexible or 'plastic': and...what might have seemed impossible in one cultural context could readily be achieved if the surrounding environment AND ASSUMPTIONS (my emphasis) were radically altered" (Gardner, 1990, p. 118).

The conclusion we may draw from these statements is that we do not necessarily have to limit children to their cultural bindings. These seemingly disparate abilities demonstrated by children in China and the U.S. may be innately present in the biological mind of each. If so, the possibility exists to develop educational methodologies which could transcend cultures and fully utilize cognitive ability.

Let me muse further. If it could be proven that the mind of the child is "wired" the same way the world around, then would we choose to honor biology or would cultural biases be considered more important? Ultimately, developmental breakthroughs in our understanding about children might still be controlled by political decisions.

Historical Precedents

Can the historical antecedents for the polarity of educational approaches be reduced simply to the two strains of education coming from the Greek tradition as Gardner suggests, or the two main strands of Chinese thought, Confucianism and Taoism? Or can these two positions be further reduced to more basic philosophical assumptions about the nature of man and his place in the universe; concepts not

developed by Gardner in this work, but which undoubtedly determine educational choices both East and West.

Our western Greek heritage gave us two contrasting approaches to education. The "mimetic" approach, in which text and teacher are the unquestioned repositories of knowledge, is the historically dominant approach. In this case, memorization and feedback by the student are the essential characteristics of learning. The second approach is the "transformative" approach (archetype: Socrates and the Socratic dialogue) in which the teacher's role is to assist the student to find the truths. Thus, the teacher involves the student actively in posing questions and searching for answers (Jackson, 1986 cited by Gardner). Constructivism (Piaget, Sigel, Fostnot, Forman) is an example of this approach.

In China, two equally contrasting approaches to learning also existed side by side. The Confucian approach to education emphasized ritualistic learning; the curriculum was uniform and universal. This was contrasted by the Taoist approach championing the individual's right to "know" by "not knowing" independent of man-made rituals and in harmony with nature (Fairbank & Reischauer, 1960).

In the Western tradition, the mimetic and transformative approaches have waxed and waned at different times and in different places going in and out of vogue. In China, the Confucian definition of the educated man has remained constant and dominant for two thousand years. The ability to be creative, so highly valued in Western education, is frowned upon in China.

Gardner reminds us that social change and educational change (with the exception of political change) have come about in an "evolutionary" manner in China. Small incremental changes have been made to basic traditions by acknowledged "masters" within a discipline. Whereas in the West, change in all disciplines is often "revolutionary," departing radically from tradition, and often brought about by upstarts. Perhaps the historical context of this discussion will be made increasingly

clearer, even eclipsed, by biological and neurological advances in cognitive science if, as Gardner suggests, these two mental dispositions occur simultaneously in the brain.

Theory of Multiple Intelligences

Gardner advocates that all intelligence is not of a unified piece. Intelligence is "raw, biological potential." Based on the findings of neurological studies, he posits that the mind is a set of specialized functions which work independently of each other. In a major work, Frames of Mind (1983), he identifies seven major types of intelligence: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, and intrapersonal. These different abilities and combinations of abilities are found among children. No one type of intelligence is superior to another.

According to Gardner, "an intelligence involves the ability to solve problems, to fashion products, which are valued in one or more cultural settings. And, consequently, a creative person is one who can regularly solve problems or fashion products or carry out projects in a domain which are initially considered novel or unusual but ultimately come to be accepted in one or more cultural settings" (Gardner, 1990, p. 113). Piaget studied only one type of intelligence--the logico-mathematical type (Gardner, 1987). There are other intelligences which need an equal degree of study.

The linguistic learner will enjoy reading, writing and telling stories and has a good memory for names, places, dates and trivia information. The logical-mathematical learner will excel at math, has strong problem-solving skills and a logical mind. The spatial learner needs a mental or physical picture to best understand new information. They have good imaginations and can design and draw things. They often daydream. The musical learner responds to music, can remember melodies, notice pitch and rhythm and is aware of sounds in the environment. The kinesthetic learner is good at physical activities and has a tendency to move around, touch things and gesture. The interpersonal learner has strong leadership skills, understands people and is sociable. They are skilled at organizing, communicating, mediating and negotiating. The

intrapersonal learner has a strong sense of self, is confident, is a bit of a dreamer and often prefers to work alone. They can follow through on their interests and goals and do well with solitude. Gardner believes that children who learn according to the individual interests and abilities will be more engaged in their work and be more competent in society.

Consequently, education must be restructured in order to provide opportunities for development of children in all intelligence areas other than the ones historically developed in our Western culture, namely logical-mathematical and linguistic ability. The developed person is not just a scientist. He/she can have abilities in one or more of seven intelligences. "Early education should foster intuitive learnings as far as they can go, and not prematurely impose conventional notations" (Gardner, p. 231). Traditional concepts about the end product of education need major revamping if his theories are true. Gardner defends the ambitiousness of his program. "In my own view, based on much previous research, the preschool child possesses a mind of unparalleled strength and potential. This is the period of life during which children can effortlessly--and without any need for formal tuition--acquire a great deal of facility with a symbol system or a cultural area. Also, on the basis of much neurological research, it has become clear that the nervous system of the young child is especially flexible or 'plastic'"; it is far easier to work on areas of weakness, or to alter a child's cognitive profile, at this tender age. Because of the young child's prodigious potential for learning, and for reorganizing patterns of learning, it seems to me appropriate to direct significant educational and assessment resources to children of this age" (Gardner, 1990, p. 203).

Individual-Centered Schooling

This new approach to education is called "individual-centered schooling." Two basic assumptions are made: that not all individuals have the same mental abilities and propensities and secondly that there is more to learn than there is time to learn it (Gardner, 1990).

Therefore, educators should see to it that each child receives the opportunity to gain basic skills and gradual mastery in individual skill area(s), i.e. intelligences. Children should be helped to select an apprenticeship in at least three areas of individual ability: an art form or craft, a form of bodily discipline and an academic discipline (Gardner, 1990).

Apprenticeships for elementary children, taking up to 1/3 of the school day, should link students with "masters" working right in their actual work environments. Working on long-term projects is important for the conceptualization and evaluation of learning by the child. Crystallization of a particular skill by the time of adolescence allows for meaningful participation in the community and can make a big difference in a child's self-concept. During adolescence the child should be encouraged to make creative contributions to his field (Gardner, 1990).

The following is a description of a Spectrum classroom.

> "...children are provided from the first with extremely inviting and rich materials, which are designed to stimulate a wide set of intelligences. A storyboard with color props evokes imaginative language; a dinosaur board game elicits numerical understanding; a small replica of the class and its miniaturized members allows us to get at both spatial understanding as well as knowledge of other people. Teachers and other observers take note of which materials attract each child and of what progress a child makes over the course of a year in interacting with these materials. We can use these materials both for free play in the class and also as the occasion for more discrete tasks, puzzles, games and "nooks" where trained observers can take a precise measure of a child's 'intelligences' in specific domains." (Gardner, p. 202).

Training is given to the observed weaknesses as well as to the strengths.

A prototype, the Key School in Indianapolis, a heavily researched lab program Project Spectrum at Tufts University, and an Arts Propel program continue to provide

the public with demonstrations of this application. As yet, this educational concept is novel and largely experimental. The neurological research for its suppositions is still ongoing.

Assessment

Assessment of the student takes on a completely new orientation and criticality. Previously, evaluation by standardized tests tested only the accumulation of scientific knowledge. Gardner argues that the development in artistic pursuits and kinesthetic abilities, for example, are equally valid ends for education and require completely different assessment tools (Gardner, 1990).

For implementation of these programs, specialized teacher training is required to teach assessment skills. Either "specialists in assessment" or teachers in general, are trained to recognize which of the various skills the child possesses. Children are also given training in skill areas before assessment can be made. Assessment must be ongoing, for children pass in and out of the various intelligences during development. All development is not linear within a domain, nor does it cross domains. Different kinds of assessment devices are required for each of the different types of intelligences. The I.Q. test of the past is worthless. Gardner reports this monitoring can be expensive and time consuming and as yet the requisite instruments for assessment do not exist for every age and every intelligence. But he maintains that teachers can be taught to identify the profiles of children in their care and can use this information to assess the optimal way in which they can approach a particular subject with each child (Gardner, 1990).

Teacher Skills

Teaching in schools of this design will be very demanding. The teacher will need to be able to understand

> which problems or questions are likely to set off the child in productive directions, and of how to encourage him to continue or to reorient him if his quest is getting nowhere. This more flexible agenda requires not only

> knowledge about each child's own level, but a sense of when to intervene and when to sit back--an art and a judgment call, that might well be wrong. Also, the teacher has to be able to draw the lesson or moral for students who are missing the point, and at the same time take care not to interfere with the child poised to make a powerful discovery by herself (Gardner, 1990, p. 253).

In addition to these challenges which are being met by all good teachers in programs of individualized instruction, there is added the demands of knowing which approach to take with each individual child within any given subject area--no small demand to place on a teacher. No existing teaching curriculum, to my knowledge, can give teachers these skills before certification. They arise from the praxis of teaching. The ability to assess individual abilities with assessment devices would go a long way to making the role of the teacher in individualed instruction easier.

Teachers' roles, redefined, will fall into several new categories. A person, called the "student curriculum broker," will match the student profiles and interests with a particular curriculum and a particular style of learning. Other teachers will teach subject matter in their preferred style of learning. The master teachers will supervise novice teachers and oversee the execution of the entire program in general (Gardner, 1987).

Creativity

Of particular interest is Gardner's research on creativity outlined in To Open Minds. His studies have shown him that creative people are characterized by "'fruitful asynchrony'--a disjunction or tension that exists at a certain level (for example, two intelligences that clash with one another) or across levels." So far, his research has not shown whether creative people just happen to have these asynchronies or whether they seek out these tensions (Gardner, 1990).

Originally believing that creativity in children advanced in an optimal sequence from free exploration and emotional release to the later acquisition of a craft, Gardner

has revised his idea after seeing Chinese children's performances. He now realizes that the acquisition of a craft can come first, followed by free exploration and innovation. Both approaches will produce creative products (Gardner, 1990).

Gardner advocates that up to the age of seven, children should be encouraged to experiment freely and create as they see fit. By the age of eight, Gardner's research shows that children want to know the rules of practice in every domain and they favor sticking to these rules over experimentation. They want to create artistic products following the rules of the discipline and do not mind the drill necessary to develop skills (Gardner, 1990).

In adolescence, artistic development changes, due to more complex and increasingly abstract thought processes. Teenagers wish their art to be personal, to speak and communicate to others their concerns. Adolescents need to be taught to discriminate and reflect on the arts.

Detailing this art curriculum is digressing somewhat, but it gives the succeeding stages to early childhood. At the early childhood level, Gardner believes that the roots of creativity lie (perhaps innately) in children's early symbolic products. Children are naturally artists and closely parallel the fully matured artist. He finds a willingness to take risks and cut across conventional categories or boundaries, a strong emotional involvement and a preoccupation with the processes of the artistic expression and not the end product. In the teenager, the two components of creativity, technical skills and creativity should come together. Gardner believes that later adult artistic achievement draws on these initial childhood efforts and therefore what happens artistically in childhood is very important.

Moral Development

Civility is one area of DAP which we must stress more in the West. Gardner believes that the basics of social conduct and self-discipline need more attention in our preschool curriculums. Children should be taught how to behave politely at home, at school and with others. Sharing, grace and courtesy, listening and dealing judiciously

with problems are all requisite skills necessary for building moral communities both in classrooms and in the larger society. Gardner found Oriental children were by and large more civil than their Western counterparts. This is because social skills are highly valued and methodically taught and reinforced at home and at school. He sees the need to implement this training for the common good.

Implications for DAP

In order to have a basis for comparison in the discussion of the ramifications of Gardner's theories on DAP, I have included Margaret and John Dopyera's description of a child-centered curriculum (1990) (see Appendix A) published in Carol Seefeldt's (Ed.) Continuing Issues in Early Childhood Education. Presumably this outline for curriculum, paralleling NAEYC's guidelines for DAP, is meant to cover a wide category of curriculums more or less falling within this "child-centered" orientation. Gardner's term for this type of schooling would be "progressive." The Dopyeras contrast a child-centered curriculum to those which are highly structured, academically oriented, teacher dominated, with teacher-controlled direct instruction (ala China).

As demonstrated by the Dopyera's paper giving an overview of the current state of affairs in early childhood education, the trend in the discussion of DAP is to label those elements of the second type of traditional curriculum (ala China) as regressive rather than benign. This may be too hasty a judgment in light of Gardner's statements about the cognitive abilities of children.

At this point in time there are still a number of educators in the U.S. who favor a structured approach, even for young children. The public has by no means completely agreed on a child-centered curriculum as the best possible option. Therefore, Gardner's proposals by comparison would seem very radical to educators of this persuasion (as they did to the Chinese). But Gardner's theories will also be a stretch for those who favor choice and individualized instruction, because he is asking us to consider the inclusion of academic structure at a time when the pendulum is swinging towards less content regulation (whole language, distancing strategies,

elimination of workbooks, basals, etc.). Gardner is asking us to consider combining both types of curriculum, basic and creative, into one synthesized whole.

Here are the characteristics of the "child-centered" curriculum as given in Appendix A and their relationship to Gardner's description of Project Spectrum.

Characteristic one. Teachers reliably follow a time structure allowing for free choice at least 1 1/2 hours in duration. Judging from a description of Project Spectrum, the child's entire day consists of individualized instruction along the lines of a Montessori classroom.

Characteristic two. Teachers structure the environment into activity centers allowing for multiple use. It would seem this concept parallels Gardner's idea of providing a rich assortment of manipulatives in the various intelligence areas. The range of activity centers in most preschools would have to be greatly expanded to encompass activities in each of the intelligence areas.

Characteristics three and four. Workable procedures for accessing, using and replacing materials are available. In Project Spectrum these procedures are expanded considerably to include assessment and close monitoring of the child.

Characteristic five. The teacher uses a board and varied repertoire for interacting with children to further their learning in relation to their self-selected activities. This is a very broad description of teacher intervention, too broad to be very helpful. It is not clear how or when the teacher would intervene. Nor is it clear in Project Spectrum exactly how and when the teacher intervention occurs at the preschool level. This is an aspect of Gardner's presentation needing further explanation and clarification.

Characteristic six. The student is profiled. Probably the Spectrum profiling goes far beyond what is customary in most preschool settings, due to the fact that individualized curriculum application is based on assessment. Additionally, there is curriculum evaluation of the various programs.

Characteristic seven. The classroom is heterogeneous. This has become a standard in areas of mixed populations.

The implications for a Montessori classroom are also profound. Rather than four areas of development (sensorial, practical life, language and mathematics), Montessori materials would need to be greatly expanded to include the development of social, kinesthetic, intrapersonal and spatial skills. Civility has always been highly stressed in a Montessori environment and most visitors comment about how well-behaved Montessori children are. The Montessori approach could provide a model for more generic programs. Assessment of individual progress and intelligences would need to be rethought and greatly expanded. The theory of multiple intelligences could either catapult the Montessori community into an expansion of the basic ideas of Maria Montessori, or else further relegate the movement to effacement, depending on the response of the Montessori leadership to this research.

Wholesale implementation of Gardner's theories would indicate a need for major changes in teacher training programs. A more unified training (core curriculum) for teachers of preschool children might be possible. There might be a streamlining of theory classes due to the possible elimination of many cognitive theories and theorists which will have become too outdated. Initially, there will be a dearth of qualified persons in the concepts of Project Spectrum to be able to offer training. All aspects of this program will be expensive--the stimulating classroom materials, the classroom refitting, the teacher retraining, etc. All the problems currently faced by educators trying to get the word out about what is developmentally appropriate for the young child will be compounded by the need to restate a new conceptualization of the child.

Gardner has asked us to reconceptualize the child, how the mind works, what intelligence is and how it can be assessed, how children learn, the role and purpose of teacher--just about everything to do with educating the young child. Thus far, his ideas have not made much impact on the field of early childhood education. Why?

My initial reaction is that these ideas are to progressive for our time because they challenge basic assumptions and cultural biases. Yet, I feel instinctively that they are harbingers of the future in education. They will change the basic conceptions we have of human nature and development across the lifespan. They do not impact directly on DAP today because to adopt them wholesale would be slightly premature from a research point of view, too expensive from an economic point of view and too challenging to the status quo from an educational point of view. Yet the seeds have been planted, and here and there experiments and research findings will accumulate until the evidence becomes too overwhelming to ignore or future research findings send education off in an altogether different direction.

Conclusion

Gardner maintains there are no formulas which can be devised to assure either a good traditional education, a progressive education or a blend of the two. Students learn as much from the ways teachers present themselves (moral beliefs, attitudes, modes of thinking and acting) as they do from the curriculum. In the East, one earned the right to be teacher by virtue of "goodness." We have lost some of the respect for teachers we once had; the profession is not attracting our best minds. To research the implications for education coming out of the multiple intelligence theory and transforming this into practice in "individual-centered schooling" will require our best minds.

Howard Gardner takes the bull by the horns of the dilemma in his attempt to reconcile two very disparate approaches to human nature and education found in China and the U.S. But he has not wrestled this bull down to the ground with this book. I am left with the impression his book is a first draft of a statement of the problem and an attempt to outline the two points of view, but not a plan of action for synthesizing the points of view or more generally revitalizing American education. Not yet, anyway. His call is for many more ethnographic studies to be made before any generalized principles

can be drawn. And no doubt, his own studies in Project Spectrum at Tufts University will continue to bring refinements for many years to his theory of multiple intelligences.

In the meantime, we will continue to grapple with the basic questions, such as: what is the purpose of education, how do young children learn best, what is the end product of early childhood education supposed to be, trying to reach consensus in order to formulate curriculum guidelines and learning processes for young children. We want to be able to say we have a concept called "developmentally appropriate practice" (DAP) for young children. But at the same time this discussion is occurring, researchers like Howard Gardner are quietly suggesting major revisions to the developmental theory upon which these discussion are based. I feel the tides pulling the sand from beneath our feet. The ultimate challenge to those defining DAP for young children will be to allow wide enough parameters when codifying what is "best" for young children. Howard Gardner's contributions to this discussion are exciting and advancing.

References

Faggella, K., Horowitz, J. (1990). Different child, different style. Instructor. 9, 100, 49-54.

Fairbanks, J. D., Reischauer, E. O. (1960). East Asia the Great Tradition. Boston: Charles E. Tuttle Co.

Gardner, H. (1987). Beyond the I.Q., education and human development. Harvard Educational Review, 57(2), 187-195.

Gardner H. (1990). To Open Minds. New York: Harper Collier Publishers.

Olson, L. (1988). Children flourish here: Eight teachers and a theory changed a school world. Education Week, 7(1), 18-20.

Seefeldt, C. (Ed.) (1989). Continuing Issues in Early Childhood Education. Columbus: Merrill Publishing Co.

Appendix A

CHARACTERISTICS OF A CHILD CENTERED CURRICULUM: TYPE B

The following is a list of characteristics we associate with the child-centered curriculum: Type B:

1. Teachers reliably follow a time structure that has at least half of the total program day and at least one time segment of 1 1/2 hour duration during which children structure their own involvement(s), choosing from among many genuinely different activity options.

2. Teachers structure the environment into activity centers, each of which provides multiple options for children's involvement, and few of which are designed to be used in uniform or "correct" ways.

3. Workable procedures for assessing, using, and replacing materials, for interacting with peers, for requesting and using help, etc., are emphasized by the teacher until thoroughly understood and adopted by the children.

4. Some program time and some classroom space are routinely dedicated to sharing and evaluation.

5. The teacher uses a broad and varied repertoire for interacting with children to further their involvement and learning in relation to their self-selected activities.

6. Teachers, other program staff members, and parents cooperate in creating a record or profile for each individual child, based on behavioral observations rather than tests, using a set of developmental categories, such as repertoire for language usage, social interactions, classification, and comparisons, using mathematical labels and concepts, causal relations, literacy, etc.

7. The classroom enrollment includes a broad mix of peers that may include differing ages; differing racial, ethnic, and linguistic backgrounds; differing socioeconomic backgrounds; differing ability levels.[1]

---

[1]There is accumulating evidence (Roopnarine, 1987; Slavin, 1987) to support heterogeneous versus homogeneous grouping in programs for young children. A mix of peers becomes even more critical in a program in which peer modeling and extensive collaboration between peers are expected and encouraged.

Seefeldt, C. (Ed.) 1989. Continuing Issues in Early Childhood Education. Columbus: Merrill Publishing Co.

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. The Pennsylvania State University does not discriminate against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Direct all affirmative action inquiries to the Affirmative Action Office, The Pennsylvania State University, 201 Willard Building, University Park, PA 16802-2801.